# Cultivating healthy food ventures: the business model perspective

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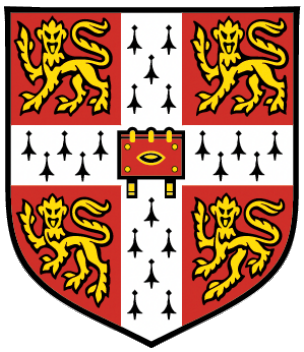

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# Abstract

***Cultivating healthy food ventures: the business model perspective***
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This research has explored the business model and business model innovation in the context of the *healthy food venture* (HFV). The HFV is defined as an organised initiative that aims to improve people's health by encouraging healthy food consumption. This research has grown out of the need to find new ways of tackling the public health issues that stem from the way food is currently produced and consumed. Scholars increasingly suggest that business model innovation helps business practitioners to achieve specific value outcomes. Thought leaders increasingly call for new business models to solve the health problems stemming from the food system. However, the literature fails to offer theory and practical guidance about how to design and manage the business models of HFVs.

The research seeks to answer two research questions: 1) what are the challenges faced by HFVs? and 2) how do HFVs innovate their business models? The purpose of this research is to help HFVs create multiple (both social and economic) value outcomes. One objective of the research is to contribute to the knowledge about healthy food intervention and more specifically, healthy food intervention through business models. Another objective of the research is to contribute to practice and offer practitioners tools that help them to operate successful HFVs. The research questions and objectives aligned with a qualitative approach. The researcher answered the research questions by studying a sample of HFVs using action research, autoethnography and traditional case study methodologies.

The research has produced specific insights and tools that can help HFV practitioners and scholars. The insights highlight the multiplicity of value that is embedded within food. Its value richness creates both opportunities and challenges for HFVs. The research has developed a context-specific business model framework—the Business Model Blossom (BMB), and has also led to the development of a business model innovation language that complements the Business Model Blossom—the Negative Value Diagnostics (NVDs). Besides these specific insights and tools, the research has challenged the current business model literature as to the precision of the business model and business model innovation concepts. It has created future research opportunities for implementing and refining the Business Model Blossom and Negative Value Diagnostics with HFV practitioners, as well as practitioners from other industries.

# Declaration

I declare this dissertation is the result of my own work and includes nothing that is the outcome of work done in collaboration unless clearly specified. It is not substantially the same as any work nor does it include a substantial part that I have submitted, or, is being concurrently submitted for a degree or diploma or other qualification at the University of Cambridge or any other University or similar institution.

I declare that it does not exceed the prescribed word limit for the Degree Committee of the Department of Engineering, as it has been submitted with 64,751 words (including tables, references, and appendices). This thesis contains 56 figures. The Department's limits for the PhD thesis are 65,000 words and 150 figures.

Kirsten Van Fossen

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# Dissemination

**Research dissemination**

**List of publications**

Evans, S., Vladimirova, D., Holgado, M., **Van Fossen, K.**, Yang, M., Silva, E. A., & Barlow, C. Y. (2017). Business Model Innovation for Sustainability: Towards a Unified Perspective for Creation of Sustainable Business Models. *Business Strategy and the Environment*, *26*(5), 597–608.

**Van Fossen, K.**, Morfin, J., & Evans, S. (2018). A Local Learning Market to Explore Innovation Platforms. *Procedia Manufacturing*, *21*, 607–614.

Geissdoerfer, M., Vladimirova, D., **Van Fossen, K.**, & Evans, S. (2018). Product, Service, and Business Model Innovation: A Discussion. *Procedia Manufacturing*, *21*, 165–172.

**List of presentations**

**Van Fossen, K.**, Morfin, J. & Evans, S. (2017, September) *A Local Learning Market to Explore Innovation Platforms.* Presentation at Global Conference on Sustainable Manufacturing, Haifa, Israel.

**Van Fossen, K.** (2016, June) *Entrepreneurial innovation to promote healthier food systems*. Presentation at Cambridge Future Cities Conference, Cambridge, United Kingdom.

**Van Fossen, K.** & Evans, S. (2015, November) *Healthy nutrition fuelling healthy business: A literature review of nutritional intervention with sustainable business models.* Platform presentation at Global Cleaner Production and Sustainable Consumption Conference, Barcelona, Spain.

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# Chapter 1

## 1. Introduction

This thesis presents the results of three years of research that explored the business models of the *healthy food venture* (HFV). This chapter gives the reader a taste of the issues and concepts that will be addressed over the course of the thesis. The first section introduces the notion of the *healthy food venture* by breaking the phrase up into the three words and ultimately explaining why they have been joined together. The remaining sections discuss current healthy food research, the concept of the business model and the overall motivation and objectives of the research.

## 1.1 Healthy food venture

This research has focused on a specific type of venture that the researcher has called the *healthy food venture*. The definition of the HFV is presented in Section 1.1.4.

### 1.1.1 Healthy

The researcher would like to be healthy. The researcher presumes that the reader would also like to be healthy. We typically want the people around us to be healthy too. If they are healthy, we are more likely to be healthy. We want our families to be healthy, our communities to be healthy and people around the world to be healthy. We regularly formalize these health goals. In workplaces in England, we have health and safety policies. Some of our employers register to the Workplace Wellbeing Charter ("Workplace Wellbeing Charter," 2017). At a global level, the United Nations has articulated our health ambitions in the third Sustainable Development Goal: "Ensure healthy lives and promote well-being for all at all ages" (United Nations, 2017). We strive to be a society that is healthy and well.

### 1.1.2 Food

We normally interact with food at least three times a day. In these moments, we may or may not be mindful of both the benefits and the costs that are intertwined with those interactions. Research paints a clearer picture of the costs of our food consumption, and it is alarming for both planetary and human health. On the planetary

side, food chain activities produce roughly one-third of the greenhouse gas emissions that exacerbate already concerning climate change (Vermeulen, Campbell, & Ingram, 2012). Planetary health might not be something we can all readily see and feel, however. Perhaps we should focus on human health. Scientists are continuously discovering more about the links between our health and what we eat. Despite scientific progress, we have alarming rates of diet-related obesity.

### 1.1.3 Venture

A venture is often associated with high growth and profit of purely financial nature (Miller & Camp, 1985). The researcher's understanding of venture, however, aligns with the broad definition offered by Oxford English Dictionary: "An enterprise of a business nature in which there is considerable risk of loss as well as chance of gain; a commercial speculation" ("venture, n.," n.d.). This definition suggests growth and profit, yet does not limit those two elements to be purely financial. By this definition, a range of organisations—charities, non profit companies, social enterprises and for profit businesses—might be considered examples of organisations that classify as ventures. One feature that the researcher considers to be shared across the various types of ventures is the risk of failure.

### 1.1.4 Healthy food venture

The unconnected concepts in the previous sections, as well as their respective titles, combine to construe *healthy food venture*. In response to our desire to be healthy amidst the degrading state of public health, many entrepreneurs are starting HFVs. What exactly is the HFV? The researcher has defined the HFV as an organised initiative that encourages healthy food consumption. The HFV is subject to budgetary pressure, often the pressure to start and grow a profitable business. A primary objective of the HFV is to improve consumers' health. Before discussing HFVs further, the chapter first discusses the broad range of approaches that have been taken to encourage healthy food consumption.

## 1.2 Approaches to encourage healthy food consumption

Across academia, business, community based organisations and government there are attempts to improve public health through healthy food interventions. The UK government recently approved a tax on sugary soft drinks, similar to taxes that have been introduced in Mexico and specific places in the US (Barquera, Campos, & Rivera, 2013; GOV.UK, 2016; Silver et al., 2017). Food retailers and manufacturers have introduced labelling schemes to make shoppers more aware of the content of food products (Hawkes et al., 2015; Thorndike, Riis, Sonnenberg, & Levy, 2014). Government, industry and community based organisations have run mass campaigns to encourage consumption of fruits and vegetables and discourage consumption of salt (Collins et al., 2014; Newson et al., 2013; Yach et al., 2010). School-based interventions, worksite interventions, physician counselling, food advertising regulations and other fiscal measures have also been tried (Cecchini et al., 2010). Despite the many and varied attempts to encourage healthy food consumption, we still find ourselves in an obesity epidemic (Roberto et al., 2015).

### 1.2.1 Difficulties encouraging healthy food consumption

There are many factors that have made progress difficult, some of which include:

- Globally we are observing the increased availability of unhealthy food—specifically, highly processed food that is high in sugar, salt and fat (Hawkes, 2005; Popkin, Adair, & Ng, 2012; Story, Kaphingst, Robinson-O'Brien, & Glanz, 2008).
- The worldview that large and powerful businesses are incentivized to oversell unhealthy food has been widely disseminated and accepted (Nestle, 2007).
- Many people experience confusion about what constitutes healthy food consumption (Hasler, 2008; Parmenter, Waller, & Wardle, 2000).

The last point acknowledges the confusion that often accompanies the notion of healthy food consumption. The confusion can be exemplified by examining 'healthy food consumption' one word at a time.

The consensus on what constitutes 'health' is ill defined, and so we find ourselves communicating about health in language that revolves around diagnosable conditions and proxies. The reader may have noticed that the researcher has thus far discussed health in terms of obesity, which is diagnosed through a measurement called the *body mass index*. Oxford English Dictionary defines health as, "soundness of body;

that condition in which its functions are duly and efficiently discharged" ("health, n.," n.d.). Health is most commonly thought of in physical and psychological terms, often as a condition of exclusion: to live without some disease or sickness. However health can refer to several other dimensions of wellbeing including mental, emotional, and spiritual, to name a few. Furthermore, health in all of these dimensions is a relative characteristic. To an athlete, health may be the ability to run a marathon. To a child with cystic fibrosis, health may be the ability to go to school every day. When we dig below the surface, health becomes multi-dimensional, complex and subjective.

It is understandable then that the concept of 'healthy food' can be confusing. While there are scientists that specialize in understanding the relationship between food and health, there have been instances of different scientists coming to different conclusions about the same food items. Sometimes we hear conflicting claims about specific food items and it is difficult to know which, if any, is coming from a reputable scientific source. From 1992-2011, the US government endorsed the US Food Pyramid, which was supposed to clarify healthy eating, yet was contested by leading nutritionists (Harvard School of Public Health, 2012; Willett, 2001). The US government transitioned from the Food Pyramid to MyPlate in 2011, yet nutrition experts still contest the US government's advice (Harvard Health Publishing, 2017). The Harvard School of Public Health advises an alternative guide for healthy eating—a Healthy Eating Plate that consists of 50% vegetables and fruit, 25% whole grains and 25% proteins, suggesting fish, chicken, beans and nuts as the healthier protein sources (Harvard Health Publishing, 2017).

What exactly is 'healthy food consumption'? Is it simply about consuming healthy foods, or is it about consuming foods in a healthy way (i.e., in order to benefit health)? We can imagine that it would not be so healthy to consume excessive amounts even of healthy foods. The Healthy Eating Plate guidelines emphasize that the quantity of foods to be consumed by an individual is dependent upon age, gender, body size and level of activity (Harvard School of Public Health, 2012). For the purposes of this research, healthy food consumption has been understood as the consumption of food in a way that is intended to benefit health.

The researcher has been careful to communicate the understanding of healthy food consumption due to its significance in the definition of the *healthy food venture*. Healthy food consumption can be interpreted in multiple ways if its intended meaning is not communicated clearly. This research interprets healthy food consumption as

eating with regard to health benefits. In later chapters of the thesis, the researcher will explain in more detail how the case ventures were selected to inform this notion of the HFV.

### 1.3 Why study ventures?

Despite healthy food consumption being such a messy issue, it is an issue that many people feel passionate about. This research will neither study the many policy-making efforts nor the health research efforts towards healthy food consumption. Instead the research chooses to study those organisations that are trying to make a health impact through food. As the researcher looked into the issues around healthy food consumption and the different approaches that have been taken and studied, the researcher discovered a lack of knowledge regarding how the business models of HFVs are designed, managed and innovated. This research aims to help entrepreneurs and innovators who are motivated to operate HFVs by equipping them with relevant insights and tools. It is important that we better understand HFVs because they represent one type of business approach towards tackling unhealthy food consumption. The mechanisms of business offer the opportunity to rapidly scale the impact of healthy food solutions. Science and policy on the contrary are slow moving and require a level of evidence that is unnecessary in the business world.

### 1.4 Why the business model perspective?

This research has explored HFVs from the business model perspective. In the management scholarship context, the term 'business model' has evolved into a construct that is understood as the way that a business creates, delivers and captures value (Osterwalder & Pigneur, 2010). There are many reasons that the researcher has chosen to take the business model perspective. This research has explored HFVs through the business model perspective because:

- 'Business-as-usual' practices are often blamed for unhealthy food consumption (Nestle, 2007).
- Thought leaders in the food and health space have called for new business models to solve the health problems that stem from food production and consumption (Lang, 2009).
- In the last two decades, the business model has become more than just a term used to describe the way that business operates. The business model literature

offers frameworks that can potentially bring a fresh perspective to healthy food intervention research.

- The business model perspective is suggested to offer a holistic, systems approach. Thought leaders who have explored healthy food interventions encourage a systems approach (Hawkes et al., 2015).
- The business model perspective is said to help entrepreneurs design, manage and innovate their ventures to capture the most value (Osterwalder & Pigneur, 2010). The business model perspective can potentially offer tools to help the entrepreneurs and innovators behind HFVs adjust their business models to achieve their goals.

The last bullet point above touches on the ability of business models to evolve. In fact, the business model literature offers numerous examples of business model transformations that achieve particular value outcomes. One example that illustrates the power of business model transformations is Airbnb:

> For decades, the hotel business offered examples of conventional business models for short-term travel accommodation. The Airbnb founders hypothesised that there were people who felt hotels were too expensive and would rather find cheaper accommodation with a local if the option existed. Using a simple online post, the Airbnb founders validated their hypothesis by advertising their own rooms to conference delegates coming to their city. While Airbnb grew out of the assumption that some tourists place value in saving money on travel accommodation, Airbnb has capitalised on other value outcomes as well. Besides cost-savings, Airbnb's appeal has been described in terms of its ability to offer tourists household amenities and more authentic experiences (Guttentag, 2015).

Airbnb's story suggests that conventional business models in other industries could be transformed to achieve new value outcomes. Public health scholars often comment on how commercial interests have grown to dominate the way we produce and consume food (Lang, 2009; Nestle, 2007). Business model transformations potentially offer the food industry a way to place greater attention on other interests (e.g., consumer health).

## 1.5 The research purpose, objectives and questions

The purpose of this research is to help HFVs create multiple (both social and economic) value outcomes—a purpose that interrelates to a number of research objectives. The first objective of the research is to make a contribution to knowledge about healthy food intervention and more specifically, healthy food intervention through business models. Another objective of the research is to contribute to practice and offer practitioners tools that help them to operate successful HFVs. An additional objective of this research has been to provide the researcher with an opportunity to learn what it means to be a good researcher.

In order to meet these research objectives, the researcher framed two research questions (RQs):

RQ1: What are the challenges faced by HFVs?

RQ2: How do HFVs innovate their business models?

These research questions resurface throughout the thesis. With RQ1, the researcher chose to identify the challenges faced by HFVs in order to help entrepreneurs understand how they might focus their energy. The researcher presumed that such an understanding would enable entrepreneurs to more easily avoid challenges, thereby accelerating their success. With RQ2, the researcher endeavoured to understand how the HFVs innovated their business models because again, the researcher imagined that such an understanding would offer entrepreneurs guidance about how best to focus their energy and prioritise their activities.

## 1.6 The thesis structure

The research questions and topics that have been introduced in this chapter will be fully explored in the remaining thesis, which is organised into 7 chapters and an insert:

**Chapter 2— Literature**...

...discusses the literature in the healthy food and business model overlap.

**Chapter 3— Research design**...

...explains how the research was designed and executed.

**Insert— The case studies**...

...presents the HFV cases.

**Chapter 4— Analysing the business model components...**

...uses a business model framework as an analytical lens to study the cases.

**Chapter 5— Developing the new business model framework...**

...builds on Chapter 4's findings to develop a new business model framework.

**Chapter 6—Healthy food venture insights from business model perspective**...

...explores the insights that have emerged by using the business model perspective to study the HFVs.

**Chapter 7— Conclusions and discussion**...

...will address the contributions, questions and future research opportunities that have surfaced in the process of analysing the HFVs through the business model perspective.

# Chapter 2

## 2. Literature

This chapter reviews the literature on business models for healthy food consumption. Given that there is no established body of literature on business models within this specific context, the chapter will provide a detailed account of the general business model literature, as well as concise overviews of other relevant bodies of literature.

### 2.1 Healthy food and the business model

The researcher systematically searched for publications in the overlap of the healthy food and business model literatures. This was done by searching the Titles, Abstracts and Keywords field in EBSCO Host, ProQuest (in Scholarly Journals and Dissertations / Theses), Science Direct, Scopus and Web of Knowledge with the search terms "business model" and "health* food" (to capture healthy food, healthful food, healthier food, etc.). Table 2.1 displays the numbers of publications that were returned. Amongst the 5 databases, the researcher found 11 unique results.

**Table 2.1 Results of systematic literature review**

| Academic database | Total No. of results |
|---|---|
| EBSCO Host | 0 |
| ProQuest | 6 |
| Science Direct | 2 |
| Scopus | 8 |
| Web of Knowledge | 1 |
| **Unique No. of Results** | 11 |

The researcher approached the Google Scholar search differently because Google Scholar offers only two options for search fields—the title or the entire text. The search for "health* food" and "business model" in the title returned 0 results, and so the researcher decided to search for the terms in the entire text. The search returned 1,720 results. The researcher reviewed the titles and text excerpts of the first 100 results, which were ordered by relevance (as evaluated by Google Scholar's algorithm) and marked the results that appeared to have relevance. Based on the percentage of those hundred that were marked as potentially relevant, the researcher either continued on

to review the next hundred (>10%) or terminated the review (<10%). The abstracts of the publications that had been marked as potentially relevant were reviewed further.

After reviewing the Google Scholar results using the described approach, the researcher determined that 31 of the results warranted closer review. It is important to note that not all of the results represented papers from peer-reviewed journals. Some of the results were books or reports. The researcher was critical in the review of all publications—peer-reviewed and not. The overall approach to the systematic literature review led the researcher to two initial observations: 1) the use of the term business model within the healthy food literature is often superficial (e.g., '*We need new business models to encourage healthier food consumption*'), and 2) there are a number of food system intervention points that academic researchers have already explored (e.g., farms, neighbourhood grocery stores, health care settings, recreational facilities, schools, workplaces). Before discussing the search results further, it is important to clarify the interpretation of the business model that has been adopted by the researcher. The clarification will give the reader a better understanding of the criteria that guided the researcher to sort the publications as described above.

## 2.2 The business model

### 2.2.1 What is the business model?

The business model (BM) was introduced in the previous chapter as a concept that describes "the rationale of how an organisation creates, delivers and captures value" (Osterwalder & Pigneur, 2010). This definition, however, still leaves room for interpretation. A brief history of the BM literature is useful. Management scholars began to engage with the term and give it meaning in the mid-1990's, yet it was introduced into the lexicon decades before by practitioners (Ghaziani & Ventresca, 2005; Massa, Tucci, & Afuah, 2017; Wirtz, Pistoia, Ullrich, & Goettel, 2016; Zott, Amit, & Massa, 2011). The emergence of the academic interest in the BM is often attributed to the rise of the Internet and its implications for the organisation of business (Amit & Zott, 2001; Zott et al., 2011).

Regardless of the impetus for its emergence, the 'business model' has drawn noteworthy attention and has become relevant across a variety of organisations. Magretta writes, "A good business model remains essential to every successful organisation, whether it's a new venture or an established player" (Magretta, 2002). Alongside the attention, the BM has accumulated a number of different definitions and

interpretations. Even as the researcher writes, the concept is still taking shape. Gladwin et al. remind us that this definitional diversity and lack of consensus is natural during the emergence of new phenomena (Gladwin, Kennelly, & Krause, 1995; Kuhn, 1962). Table 2.2 offers a sample of BM definitions that demonstrate the diversity that the business model has seen over the years.

**Table 2.2 Sample of business model definitions**
modified from (Geissdoerfer, Vladimirova, & Evans, (under review))

| Source | Definition | Representative of... |
|---|---|---|
| (Timmers, 1998) | "an architecture for the product, service and information flows, including a description of the various business actors and their roles; and a description of the potential benefits for the various business actors; and a description of the sources of revenues." | Early definition |
| (Chesbrough & Rosenbloom, 2002) | "the heuristic logic that connects technical potential with the realization of economic value...The business model provides a coherent framework that takes technological characteristics and potentials as inputs and converts them through customers and markets into economic outputs" | Economic focus |
| (Magretta, 2002) | "[Business models] are, at heart, stories—stories that explain how enterprises work [and answer the following questions,] Who is the customer? And what does the customer value? It also answers the fundamental question every manager must ask: How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to the customers at an appropriate cost?" | Narrative |
| (Casadesus-Masanell & Ricart, 2010) | "a reflection of the firm's realized strategy" | Link to strategy |

| Source | Definition | Representative of... |
|---|---|---|
| (Osterwalder, Pigneur, & Tucci, 2005) | "A business model is a conceptual tool that contains a set of elements and their relationships and allows expressing the business logic of a specific firm. It is a description of the value a company offers to one or several segments of customers and of the architecture of the firm and its network of partners for creating, marketing, and delivering this value and relationship capital, to generate profitable and sustainable revenue streams." | Conceptual tool |
| (Osterwalder & Pigneur, 2010) | "the rationale of how an organisation creates, delivers and captures value" | Highly-cited |
| (Teece, 2010) | "describes the design or architecture of the value creation, delivery, and capture mechanisms [a business enterprise] employs. The essence of a business model is in defining the manner by which the enterprise delivers value to customers, entices customers to pay for value, and converts those payments to profit." | Highly-cited |
| (Baden-Fuller & Morgan, 2010) | "Business models have a multivalent character as models. They can be found as exemplar role models that might be copied, or presented as nutshell descriptions of a business organisation: simplified, short-hand descriptions equivalent to scale models. We can think of them not only as capturing the characteristics of observed kinds in the world (within a taxonomy), but also as abstract ideal types (in a typology)" | Ability to categorize types |
| (Richardson, 2008) | "a conceptual framework that helps to link the firm's strategy, or theory of how to compete, to its activities, or execution of the strategy...The three major components of the framework — the value proposition, the value creation and delivery system, and value capture — reflect the logic of strategic thinking about value. The essence of strategy is to create superior value for customers and capture a greater amount of that value than competitors." | Value proposition, creation and delivery, and capture |
| (Massa et al., 2017) | "a description of an organisation and how that organisation functions in achieving its goals (e.g., profitability, growth, social impact,...)" | Goal-driven |

The range of definitions and interpretations has given scholars the opportunity to explain the different approaches that academics and practitioners have taken to the concept of a business model. For example, Geissdoerfer et al. point to three main categorizations that emerge from the definitions—the BM as a model, the BM as an abstract concept and reduced scope BMs, which are explained in Figure 2.1 (Geissdoerfer et al., (under review)).

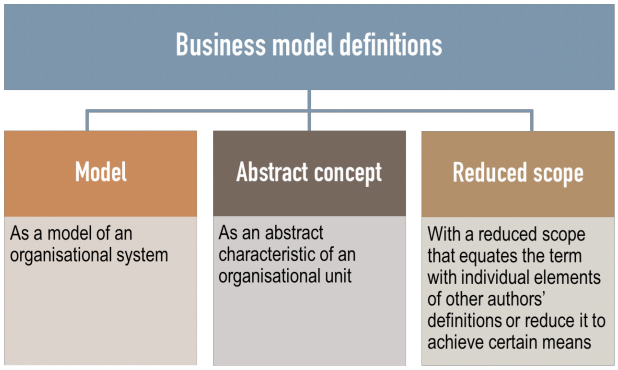



**Figure 2.1 Three types of business model definitions**
from (Geissdoerfer et al., (under review))

On a similar note, Ghaziani and Ventresca conducted a frame analysis of the term 'business model' and found 10 frames of understanding across the BM discourse up until the year 2000 (Ghaziani & Ventresca, 2005); a 'frame' referring to the "underlying structures or organising principles that bind and give coherence to diverse arrays of symbols" (Creed, Langstraat, & Scully, 2002). Their analysis demonstrated that 'value creation', 'tacit conception' and 'revenue model' were the most popular frames, 'tacit conception' signifying that the researchers were unable to find an explicit definition but the term was implied to be tacitly understood amongst the community in which it was used (Ghaziani & Ventresca, 2005).

**Table IV.** Frame Frequencies, Pre- and Post-Digital Economy

| | Time period | | |
|---|---|---|---|
| | Pre-Digital Economy (1975–1994) | Post-Digital Economy (1995–2000) | *N* |
| Business model content frame | | | |
| Value creation | 6 (−3.6)** | 78 (2.3)* | 84 |
| Tacit conception | 28 (1.0) | 54 (−0.6) | 82 |
| Revenue model | 10 (−2.1)* | 57 (1.3) | 67 |
| Electronic commerce | 7 (−2.5)* | 55 (1.6) | 62 |
| Computer/systems modeling | 44 (6.9)** | 13 (−4.4)** | 57 |
| Relationship management | 13 (−0.1) | 34 (0.1) | 47 |
| Business strategy | 7 (0.4) | 14 (−0.3) | 21 |
| Business plan | 2 (−1.0) | 12 (0.6) | 14 |
| Organization design | 4 (0.2) | 9 (−0.1) | 13 |
| Globalization | 8 (3.4)** | 1 (−2.1)* | 9 |

*Note.* Standardized residual values in parentheses. Three cells have expected counts of less than 5 and this may result in a slightly inflated chi-square statistic. The low frame counts in certain periods are substantively meaningful information in considering the historical distribution of frames. $\chi^2 = 119.787$; 9 d.f.; $p < 0.001$; $N = 456$. *$p < 0.05$. **$p < 0.01$.

**Figure 2.2 Frequencies of business model frames**
from (Ghaziani & Ventresca, 2005)

The meaning of business model has continued to evolve since 2000, particularly around the notion of value creation. The definitions shared in Table 2.2 demonstrate the interest amongst management scholars in exploring the business model with respect to value creation and capture. As they appear in Richardson's definition, 'value proposition', 'value creation and delivery' and 'value capture' have emerged as important BM components amongst a number of peer-reviewed publications (Bocken, Short, Rana, & Evans, 2014; Saebi, Lien, & Foss, 2017; Smith, Binns, & Tushman, 2010). The researcher will henceforth refer to these BM components as the 'three value constructs' and will simplify 'value creation and delivery' to 'value delivery' to emphasize that the aim of 'value creation and delivery' is ultimately to deliver value to an end recipient (the reasons for this are explained further in Section 2.2.4).

### 2.2.2 Value

Before discussing the role of value in the BM, it is first necessary to discuss value in isolation. Value is another concept that carries various meanings. The concept has been discussed and debated from ancient times. In just one example, Ueda et al. illustrate the rich history of the concept of value by mapping the various conceptions of value onto a space defined by time and four levels of value—philosophical, individual, societal and environmental—as shown in Figure 2.3 (Ueda, Takenaka, Vancza, & Monostori, 2009).

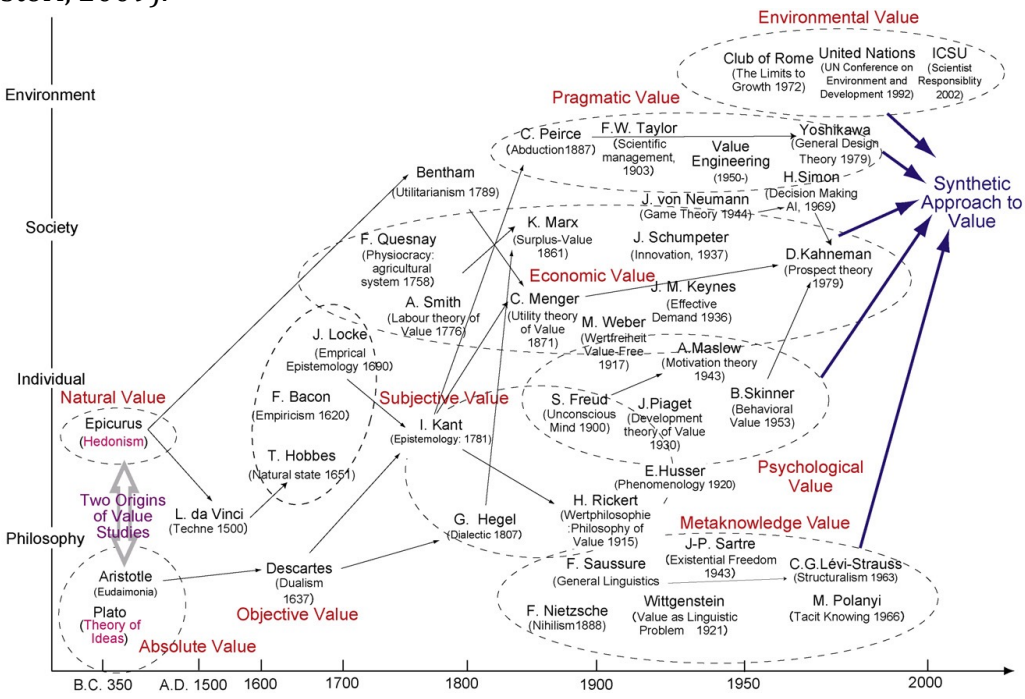



**Figure 2.3 Genealogy of axiology**
from (Ueda et al., 2009)

Business scholars often recall the concepts of use value and exchange value defined by Adam Smith. Ueda et al. recall Smith's work, "In that treatise, value was classified into two types: use- and exchange value. Use value is the usefulness of a product or its utility, whereas exchange value is equal to the relative proportion with which a certain product can be exchanged for another product" (Evans et al., 2017; Ueda et al., 2009). Bowman and Ambrosini suggest that exchange value be represented monetarily (Bowman & Ambrosini, 2003); however Smith's conceptualisation of exchange value does not mandate the exchange of money.

Den Ouden offers an alternative classification scheme for value: "to better understand value, it is important to distinguish the level at which value is perceived" (den Ouden, 2012). The classification scheme identifies four levels at which value can be perceived—1) user, 2) organisation, 3) ecosystem and 4) society, where ecosystem refers to the network of organisations that are required for a venture to succeed (den Ouden, 2012). Den Ouden also acknowledges the various perspectives that different disciplines bring to the concept of value. Figure 2.4 illustrates a proposed Value Framework that integrates both the value levels and value perspectives (den Ouden, 2012).

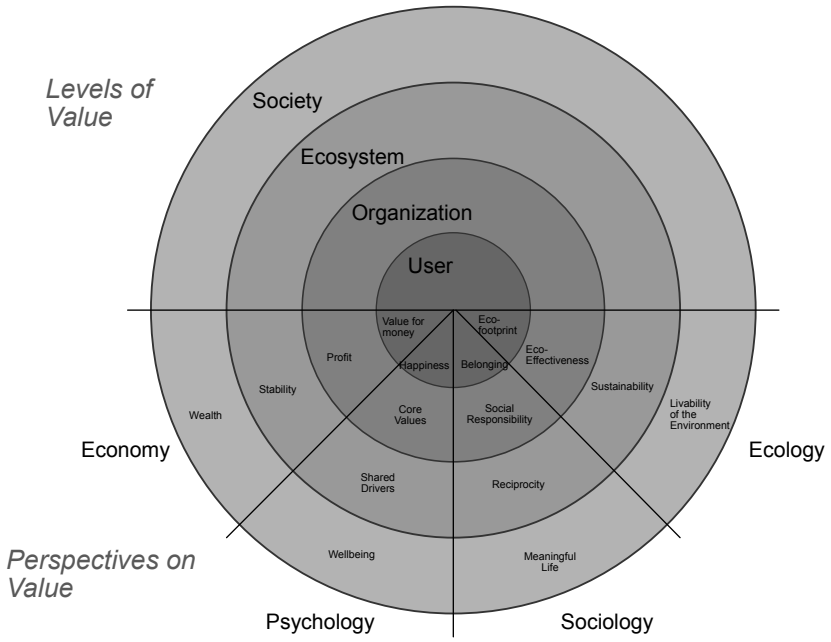



**Figure 2.4 Value Framework**
from (den Ouden, 2012)

Value is a difficult word for multiple reasons. There is the issue of conceptual clarity, which stems from the range of perspectives with which to view value. There is also the issue of measuring value. Some forms of value are more tangible and easily

measurable than others (Kaplan & Norton, 2004). Another difficulty with the term value comes from its different meanings, not due to differences in perspective but the different contexts in which it is used. As authors have previously pointed out, there is the 'value' that refers to the significance or worth of something and the 'values' that refer to an individual or group's perception of what is important in life (den Ouden, 2012). Going forward, the researcher will avoid the use of value in the 'values' context, and will often describe value with the phrase 'value form' as suggested by Evans et al (2017). Figure 2.5 illustrates the interpretation of value that has been adopted by the researcher.

**value, n.** value is a potential, singular benefit that an offering is perceived to hold.

An offering is conceptualised as any thing, tangible or intangible, that is offered to an intended end recipient. A single offering can contain multiple value forms.

**Figure 2.5 Working definition of value**

An additional difficulty comes from the fact that the plural form of 'value' in this sense of the term is 'value.' For example, if someone were to write—the book holds value for the student—it would be unclear whether the author uses value to represent a singular value form or multiple value forms.

### 2.2.3 Value proposition

Of the three value constructs in the business model, value proposition has arguably achieved the most conceptual clarity with regard to *what* it is. As demonstrated in Table 2.3, the value proposition is an offering of benefits that a firm proposes to an end recipient. Table 2.3 presents a small sample of ways that scholars have described the value proposition in the last 25 years.

**Table 2.3 Examples of value proposition interpretations**

| Source | Interpretation of value proposition |
|---|---|
| (Rayport & Sviokla, 1994) in *Harvard Business Review* | "three basic elements—content, or what companies are offering; context, or how they are offering it; and infrastructure, or what enables the transaction to occur" |
| (Vargo & Lusch, 2004) in *Journal of Marketing* | "The enterprise can only make value propositions", [suggesting that it is up to the customer to realize the value a firm offers; the authors describe an emerging logic concerning value], "This logic views financial results not as an end result but as a test of a market hypothesis about a value proposition. The marketplace can falsify market hypotheses, which enables entities to learn about their actions and find ways to better serve their customers and to improve financial performance" |
| (Johnson, Christensen, & Kagermann, 2008) in *Harvard Business Review* | The authors suggest it involved the identification of a "job to be done" for a target customer. The value proposition itself is the "offering, which satisfies the problem or fulfills the need...defined not only by what is sold but also by how it's sold." |
| (Osterwalder, Pigneur, Bernarda, & Smith, 2014) in book *Value Proposition Design* | "the benefits customers can expect from your products and services" |

One contention around the value proposition lies in to *whom* the proposition is being made. While some scholars have perpetuated the focus on a value proposition to the customer (Johnson et al., 2008; Osterwalder et al., 2014); others increasingly suggest that many business models feature value propositions to multiple stakeholders (Bocken, Short, Rana, & Evans, 2013; Frow & Payne, 2011).

**value proposition, n.** a value proposition is a package of value form(s) embedded within a firm's offering.

**Figure 2.6 Working definition of value proposition**

### 2.2.4 Value delivery

The BM literature often groups the concepts of value creation and delivery together, as has been demonstrated in Table 2.2 (e.g., Richardson's business model definition). Given the fluid boundary between value creation and value delivery, the researcher has decided to simply use 'value delivery' to refer to both value creation and delivery activities.

The concept of value creation has a long history, and so the researcher will first provide a brief synopsis. Value creation is often referenced in the management research community, yet it is another term subject to multiple interpretations. Like business model, value creation often falls victim to an assumed shared understanding amongst scholars. Table 2.4 offers a brief selection of different usages of the term value creation, demonstrating that the focus is sometimes placed on value creation as a process and other times as an outcome.

**Table 2.4 Value creation usage and implications**

| **Source** | **Usage** | **Implies that...** |
|---|---|---|
| (Gummesson, 1998) in *Journal of the Academy of Marketing Science* | "[In Piercy's article, production] is viewed as value creation or value added by the supplier, whereas consumption is value depletion caused by the consumer. If the consumer is the focal point of marketing, however, value creation is only possible when a product or service is consumed. An unsold product has no value, and a service provider without customers cannot produce anything." | value creation in the marketing context is an outcome dependent upon the consumer, whereas for the referenced author Piercy, value creation is a production process |
| (Grönroos, 2000) in *Service Management and Marketing* (book) | *"Value for customers is created throughout the relationship by the customer, partly in interactions between the customer and the supplier or service provider*. The focus is not on products but on the customers' *value-creating processes* where value emerges for customers and is perceived by them...the focus of marketing is *value* creation rather than value distribution, and facilitation and support of a value-creating process rather than simply distributing ready-made value to customers." | value creation is a continuous process that involves both the firm and the customer |
| (Bowman & Ambrosini, 2003) in *Academy of Management* meeting paper | "Two types [of activity] are involved with the process of value creation: one is concerned with the capture of exchange value from customers, and another with the capture of use value from suppliers." | value creation is a process that is dependent on the customer returning value to the firm, and the firm leveraging value from suppliers |
| (Vargo, Maglio, & Akaka, 2008) in *European Management Journal* | "value is not created until the beneficiary of the value proposition...has actually [received the benefit] and has somehow integrated this new resource into his or her life" | value creation is the outcome of a process that is complete when a beneficiary perceives and recognizes use value |

| Source | Usage | Implies that... |
|---|---|---|
| (Le Ber & Branzei, 2010) in *Journal of Business Ethics* | "Cross sector partners strive for a common goal (i.e., [social value creation]). However, their underlying logics of social value creation often stand in stark contrast, in part because for-profit and nonprofit partners are often deeply embedded in distinct value logics." | value creation is an outcome, and it is interpreted according to an embedded value logic |

Bowman and Ambrosini have illustrated their conception of the value creation process with the diagram displayed in Figure 2.7.

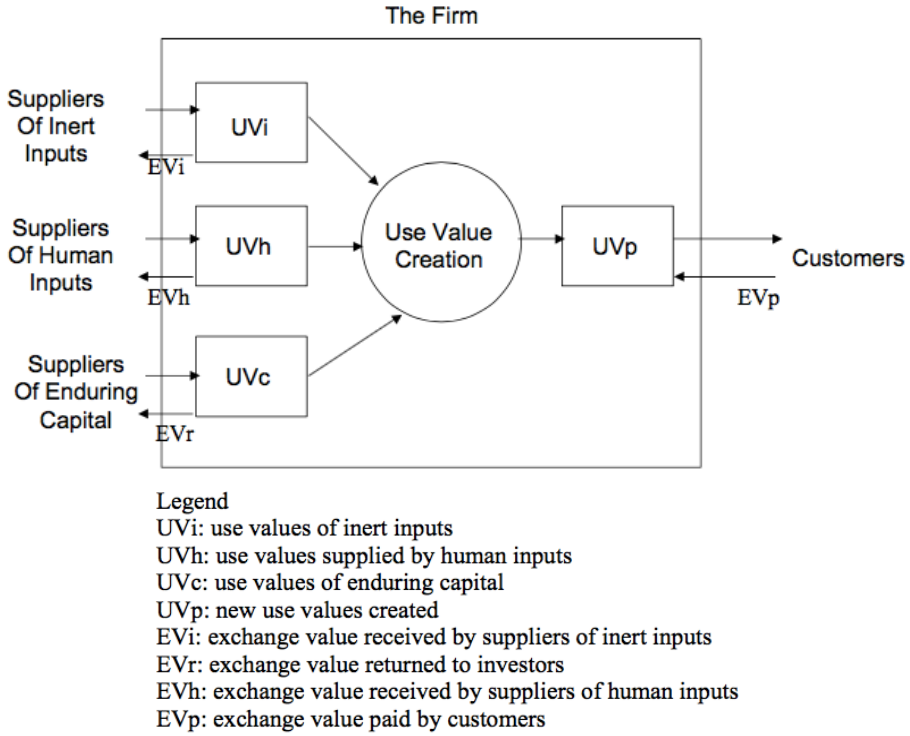



**Figure 2.7 Use values and exchange values in the value creation process**
from (Cliff Bowman & Ambrosini, 2003)

The uses of value creation in Table 2.4 align with Massa et al.'s claim that value creation has more recently become recognized as a supply- and demand-side phenomenon, as opposed to the traditional 1990's notion of value creation being exclusively controlled by producers (Bowman & Ambrosini, 2003; Massa et al., 2017; Vargo et al., 2008). "Value is created not only by producers, but also by customers and other members of their value-creation ecosystems," write Massa et al. (Massa et al., 2017). However the widened boundary of value creation renders the scope of the construct less clear. Additionally, value creation is used both to describe a process and an outcome. It is sometimes unclear whether authors use it to communicate the

activities that underpin the creation of value (process) or the recognition that use value and / or exchange value have been generated (outcome). The confusion surrounding process and outcome is problematic in the context of instilling value creation with more clarity. The general business model concept also suffers from this problem.

The researcher has understood value creation, when used in the sense of a process, to encompass both the creation and delivery of value forms. Going forward, the researcher will attempt to avoid the confusion caused by the messy history and ambiguity of the term value creation, and will instead use the term value delivery to refer to the activities related to realising the value proposition to an end recipient. The researcher has drawn inspiration from Richardson's conception of the related activities to propose a working definition of value delivery (Richardson, 2008).

**value delivery, n.** value delivery encompasses the numerous activities that a firm undertakes to create, produce, trade and realise their value proposition.

**Figure 2.8 Working definition of value delivery**

### 2.2.5 Value capture

At this point, the reader might anticipate the semantic misunderstandings and debates that surround value capture. The researcher has found that it also has a history laced with confusion. An example excerpt from a scholarly dialogue further evidences the semantic confusion, especially with respect to value creation and value capture:

> "Bowman and Ambrosini [(2000)] define value capture as profit—that is, the difference between the exchange value (i.e., revenue) that a firm receives from customers for its product and the exchange value (i.e., cost) that a firm pays to resource suppliers for the resources need to produce that product...Priem correctly observes that Makadok (2001) uses the term value creation to mean what Bowman and Ambrosini term value capture" (Makadok & Coff, 2002).

Besides highlighting the confusion, the excerpt above suggests that value capture is equivalent to profit; however even profit is not always interpreted equally amongst scholars. Yunus et al. suggest that there is both economic profit and social profit (Yunus, Moingeon, & Lehmann-Ortega, 2010). While scholars such as Yunus et al. highlight that

profit need not be interpreted as monetary profit, many scholars, such as Richardson, do place a monetary focus on profit as part of value capture (Richardson, 2008):

> "the revenue model and the economic model, combine to explain how the firm will make money. They describe the various revenue streams, the cash flow, and the margins. A creative and thoughtful approach to value capture is an essential component of building a successful business model. The firm's value creation and delivery system must be designed with both the value proposition and value capture in mind."

One thread that runs through various discussions about capturing value is that it involves appropriating value for the organisation at the centre of the business model. Table 2.5 demonstrates this pattern.

**Table 2.5 Excerpts on the value-capturing element of business models**

| Source | Excerpt |
|---|---|
| (Magretta, 2002) | "[The business model] also answers the fundamental question every manager must ask: How do we make money in this business? What is the underlying economic logic that explains how we can deliver value to the customers at an appropriate cost?" |
| (Teece, 2010) | "In standard approaches to competitive markets, the problem of capturing value is quite simply assumed away: inventions are often assumed to create value naturally and, enjoying protection of iron-clad patents, firms can capture value by simply selling output in established markets, which are assumed to exist for all products and inventions. Thus there are no puzzles about how to design a business – it is simply assumed that if value is delivered, customers will always pay for it." |
| (Richardson, 2008) | (Quoted at the top of the page)<br>"the revenue model and the economic model..." |

The researcher accepts the interpretation from the mainstream BM literature that value capture is about value appropriation for the firm at the centre of the BM. However, the researcher recognizes that value capture can extend beyond financial value to include social and environmental value, a point that is rarely made explicit in the mainstream management literature. Yang et al. have invented a 'value uncaptured' language to remedy the literature's limited view of value capture being concerned primarily with financial revenue and paying customers (Yang, Evans, Vladimirova, &

Rana, 2017). As the Table 2.5 excerpts suggest, organisations may have to think creatively about how to collect value for themselves in order to continue to deliver their value propositions.

**value capture, n.** value capture encompasses the activities that a firm undertakes to collect value form(s) in return for delivering their value proposition.

**Figure 2.9 Working definition of value capture**

### 2.2.6 The three value constructs

The preceding subsections have demonstrated the variety of ways that scholars have interpreted the three dominant value constructs in the literature. With such rich histories, the concepts of value and the value constructs carry significant baggage. The reader may have noticed that the researcher offered the name of the journal or book from which the various interpretations were extracted in order to give the reader a better understanding of the discipline of origin. The definitional diversity of each of these value constructs presented thus far could arguably be related to differences among disciplines (e.g., management might have a slightly different view to marketing). Even so, the business model literature draws on many different bodies of literature—strategy, management, marketing, operations, etc.—and many of the discussions of the three value constructs that go into more depth are found outside the body of literature that is focused specifically on the business model. It is important that the interpretations of the various value constructs within the context of the business model be clarified.

### 2.2.7 Other value constructs

Beyond the three value constructs presented thus far, there are other value-based constructs that appear in the business model literature. They have been suggested either as a part of the business model, or as peripherally related. Table 2.6 presents a selection of these value constructs. The reader might notice that the value constructs sometimes overlap with one another and/or with the three value constructs already presented.

**Table 2.6 Selection of specific value constructs**

| Value construct | Description | Source |
|---|---|---|
| Value chain | "the series of activities required to produce and deliver a product or service" | (Porter, 2001) |
| Value constellation | "[A value constellation is] the answer to the question: 'How do we deliver this offer to our customers?' This involves not only the company's own value chain but also its value network with its suppliers and partners" | (Yunus et al., 2010) |
| Value exchange | "A *transaction* occurs when a deliverable originated by one role is conveyed to and received by another. Two or more reciprocal transactions are an *exchange*." | (Allee, 2008) |
| Value expectation | "Customers develop value expectations and make purchasing decisions based on their perceptions of a brand's benefits coupled with the total cost (e.g. price, time, etc.) of the purchase. Customer satisfaction gauges the extent to which the product use experience compares favorably to the value expectation." | (Cravens, Greenley, Piercy, & Slater, 1997) |
| Value flow | Value flow is often used to describe a transaction, as illustrated in this explanation: "A value-flow system is a type of business model that is based upon the concept of value exchange between network stakeholders. In a [value flow] system the needs of the firm, its suppliers, its customers and its partners are inter-connected so as to mutually satisfy each of the different stakeholders in the network. If a stakeholder does not receive what they value then they will stop participating in network activities. " | (Shaw, 2010) |
| Value formula | "The value formula is a formula that shows how the value and the cost are calculated by the business...The result of this calculation is a value formulae either expressed in money or/and other values" | (Lindgren & Rasmussen, 2013) |
| Value network | "The value network dimension encompasses how a firm identifies, works with, and reacts to customers, suppliers, and competitors. The value network is a tightly connected, complex system of suppliers, customers, distributors, and partners (Christensen and Rosenbloom, 1995). The value network dimension is encompassing, embracing the unique relationships that a company builds with both its upstream (supplier) and downstream (distributor and customer) channels." | (Christensen & Rosenbloom, 1995; Koen, Bertels, & Elsum, 2011) |

The researcher presumes it is obvious to the reader by this point that management scholars love to write about value and invent value constructs. This creates a lot of confusion. This is one of the reasons that the researcher has attempted to be precise in communicating the interpretations this thesis has taken with respect to the three value constructs. If a researcher does not communicate a precise definition for a concept that is subject to multiple definitions, it is difficult to follow the theory that a researcher is building upon or analysing against.

### 2.2.8 A working definition of the business model

The previous sections have demonstrated that the literature has sought to bring increasing clarity to the business model construct by employing three dominant value constructs that individually lack conceptual clarity. The researcher has proposed working definitions throughout the chapter to bring analytical clarity to the concept of value and the value constructs within this study. Figure 2.10 presents the researcher's understanding of the business model, as well as the understanding of value and the value constructs.

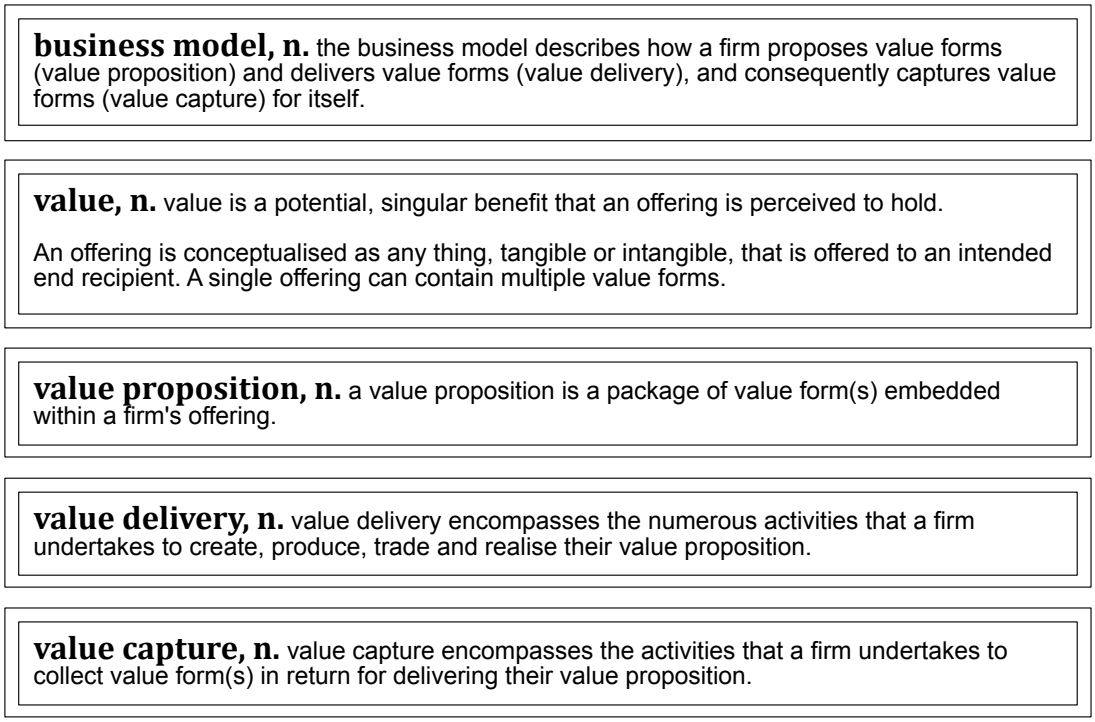



**Figure 2.10 Working definition of the business model**

## 2.3 Business model innovation

The popularity of the improved business model as a subject of academic inquiry has led to much study into its innovation. The concept of business model innovation (BMI) has become of great interest, in part because scholars credit it as a source of competitive advantage (Kindström, 2010; Mitchell & Coles, 2003), as well as a means of creating targeted outcomes—e.g., social innovation (Yunus et al., 2010). Foss and Saebi conducted a systematic literature review of the business model innovation literature, concluding that BMI generally lacks conceptual clarity (Foss & Saebi, 2016). Their review features a table of BMI definitions, which has been modified and further condensed in Table 2.7.

**Table 2.7 Selection of business model innovation definitions**

| Source | Definition | BMI implications |
|---|---|---|
| (Mitchell & Coles, 2003) | "By business model innovation, we mean business model replacements that provide product or service offerings to customers and end users that were not previously available. We also refer to the process of developing these novel replacements as business model innovation." | BMI occurs in a firm with a pre-existing business model |
| (Markides, 2006) | "Business model innovation is the discovery of a fundamentally different business model in an existing business." | Occurs in a firm with a pre-existing business model |
| (Santos, Spector, & Van der Heyden, 2009) | "Business model innovation is a reconfiguration of activities in the existing business model of a firm that is new to the product service market in which the firm competes." | Occurs in a firm with a pre-existing business model |
| (Aspara, Hietanen, & Tikkanen, 2010) | "Initiatives to create novel value by challenging existing industry- specific business models, roles and relations in certain geographical market areas." | Occurs in a firm with a pre-existing business model or a completely new firm |
| (Berglund & Sandström, 2013) | "A BMI can thus be thought of as the introduction of a new business model aimed to create commercial value." | Occurs in a firm with a pre-existing business model or a completely new firm |

| Source | Definition | BMI implications |
|---|---|---|
| (Casadesus-Masanell & Zhu, 2013) | "At root, business model innovation refers to the search for new logics of the firm and new ways to create and capture value for its stakeholders; it focuses primarily on finding new ways to generate revenues and define value propositions for customers, suppliers, and partners." | Occurs in a firm with a pre-existing business model |
| (Khanagha, Volberda, & Oshri, 2014) | "Business model innovation activities can range from incremental changes in individual components of business models, extension of the existing business model, introduction of parallel business models, right through to disruption of the business model, which may potentially entail replacing the existing model with a fundamentally different one." | Occurs in a firm with a pre-existing business model |

The definitions suggest, as Foss and Saebi have emphasized in their review, that BMI is conceptualised as both an outcome and a process (Foss & Saebi, 2016).

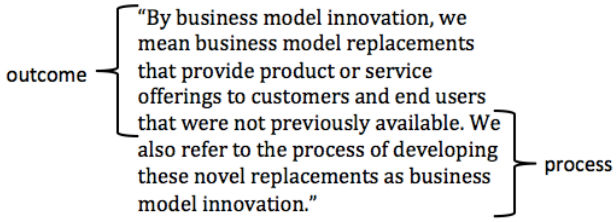



**Figure 2.11 BMI as both outcome and process**
using Mitchell and Coles, 2003 definition

The definitions also imply, as suggested in Table 2.7's third column, that BMI generally presupposes an existing business model upon which a firm innovates. This however is not always made clear in the definitions, and some scholars suggest the initial generation of a business model can be considered a business model innovation. Geissdoerfer et al. define business model innovation as "either a process of transformation from one business model to another within incumbent companies or after mergers and acquisitions, or the creation of entirely new business models in start-ups" (Geissdoerfer, Bocken, & Hultink, 2016). In summary, Table 2.7 and the academic discussion surrounding BMI highlight the burgeoning scope yet decreasing conceptual clarity of the BMI definition.

Interestingly, Foss and Saebi compare BMI's level of conceptual clarity to that of the BM construct, and suggest that the BM has achieved satisfactory clarity (Foss & Saebi, 2016). However, the researcher's review of the academic literature has revealed

that while there is a growing consensus that the BM concept relates to a firm's value -proposition, -creation and -delivery and –capture, there is a lack of consensus around the definitions and boundaries of the value constructs themselves. The researcher has been unable to find a clear explanation about where value creation ends and value capture begins. Whether a typo or not, even Foss and Saebi are inconsistent in their writing about the value constructs of the BM; they primarily refer to the constructs as value creation, delivery and capture throughout their paper, yet describe them differently in this instance: "We can think of BMs as forming such systems, with the value capture, delivery, and appropriation mechanisms constituting subsystems" (Foss & Saebi, 2016).

Given all that has been speculated with respect to BMI (e.g., its relation to competitive advantage and targeted outcomes), it is critical that scholars develop a clearer understanding of BMI. Such an understanding requires more solid footing with respect to the value constructs and their interpretation within the business model definition. Foss and Saebi allege that the literature has not yet produced a true theory of BMI and call on scholars to fill this void (Foss & Saebi, 2016). The development and proposal of BMI theories not only demands more conceptual clarity within the BM literature, but also helps to develop BM frameworks and BMI processes that are useful and actionable for practitioners. For the purpose of this research into HFVs, the researcher adapts Geissdoerfer et al.'s definition of BMI (Geissdoerfer et al., (under review)).

**business model innovation, n.** business model innovation is the conceptualisation and implementation of new business models.

This can comprise the development of entirely new business models, the adaptation of existing ones and the transformation from one business model to another. It can affect the entire business model or an individual or a combination of its value proposition, value delivery and value capture components.

**Figure 2.12 Working definition of business model innovation**

## 2.4 Visual representations of business model frameworks

The review of the BM literature has uncovered the lack of conceptual clarity that emerges upon a deeper exploration of the three value constructs that are proposed to comprise the BM. The researcher has built from the literature to label and define the three value constructs as value proposition, value delivery and value capture. The

researcher has presented definitions of the BM and BMI that are underpinned by the literature review.

While the written definitions bring some clarity to the BM and BMI concepts that the researcher has adopted, questions still remain. The definitions do not provide a clear method for understanding how the value constructs interrelate or how exactly practitioners use this information to map out their BMs. The researcher will use the phrase 'map out the BM' throughout the thesis to communicate the act of clarifying the current business model of a venture.

One way that scholars have endeavoured to mitigate the lack of clarity about the BM construct is by organising and visually representing its various parts into frameworks. The subsequent sections present scholars' various attempts at visual representations of the BM. The researcher sourced the first three frameworks based on their prominence (Sections 2.4.1-2.4.3), and the fourth framework given its proximity to the researcher (Section 2.4.4).

### 2.4.1 Business Model Canvas

The Business Model Canvas (Figure 2.13) is a visual representation of the business model that followed from PhD research into the emerging concept of the business model (Osterwalder, 2004). As a PhD student, Alexander Osterwalder analysed the literatures related to the phenomenon of the BM to synthesize 9 essential components of the BM that have evolved into the 9 building blocks of the Business Model Canvas (Osterwalder, 2004). The 9 building blocks are: customer segments, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partnerships and cost structure (Osterwalder & Pigneur, 2010).

The Business Model Canvas has gained traction amongst both scholars and practitioners. Its academic acceptance is evidenced by the amount of research that has built upon the Business Model Canvas. In Scopus alone, the search for the phrase "business model canvas" returns 336 results. The book that presents the Business Model Canvas, *Business Model Generation*, has now sold over one million copies, demonstrating its acceptance among practitioners (PRNewswire, 2014). It has experienced this success despite it having been released to the world less than a decade ago (PRNewswire, 2014).

The Business Model Canvas is now presented through other mediums (e.g., websites) and is described as follows (Strategyzer, 2017):

"The Business Model Canvas is a strategic management and entrepreneurial tool. It allows you to describe, design, challenge, invent, and pivot your business model."

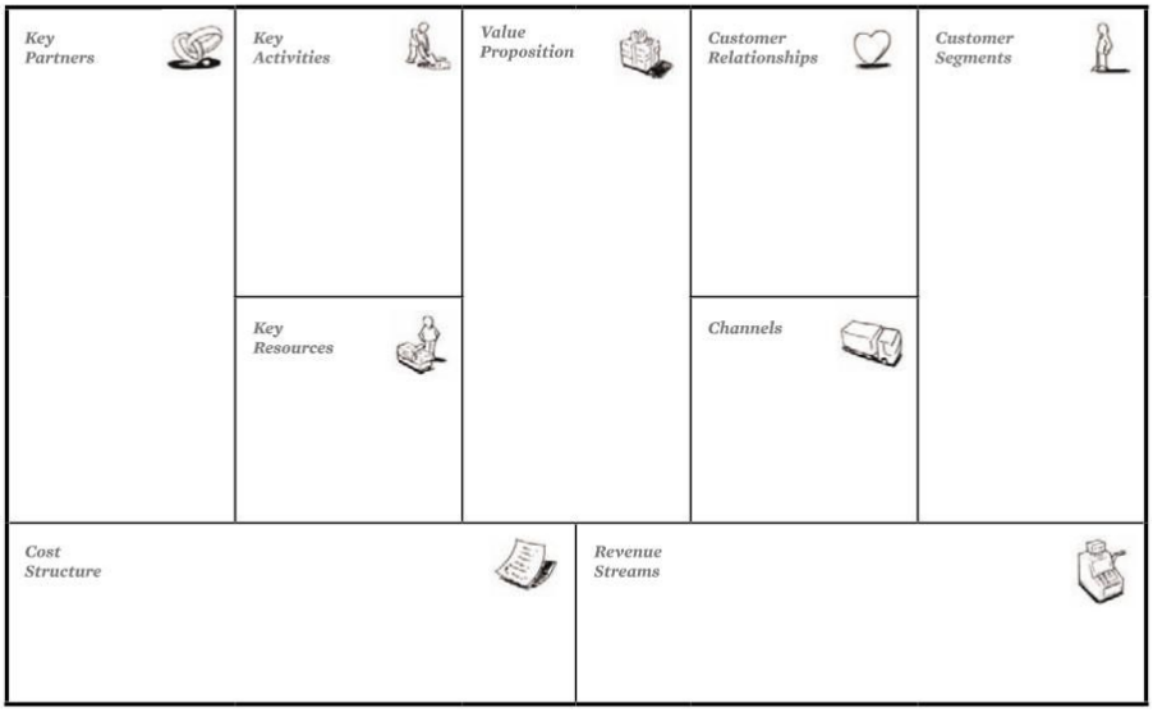



**Figure 2.13 Business Model Canvas**
from (Osterwalder & Pigneur, 2010)

### 2.4.2 Elements of a Successful Business Model

Another practical business model framework that has gained prominence among practitioners is the 'Elements of a Successful Business Model' framework that was published by Johnson, Christenson and Kagermann in a 2008 *Harvard Business Review* (HBR). In their HBR piece, Johnson et al. offer the framework (which they label a 'roadmap') as the antidote to the issues their research uncovered about the BM concept with real world companies. Johnson et al. write, "few companies understand their existing business model well enough – the premise behind its development, its natural interdependencies, and its strengths and limitations. So they don't know when they can leverage their core business and when success requires a new business model" (Johnson et al., 2008). Their framework proposes four key elements: customer value proposition, profit formula, key resources and key processes.

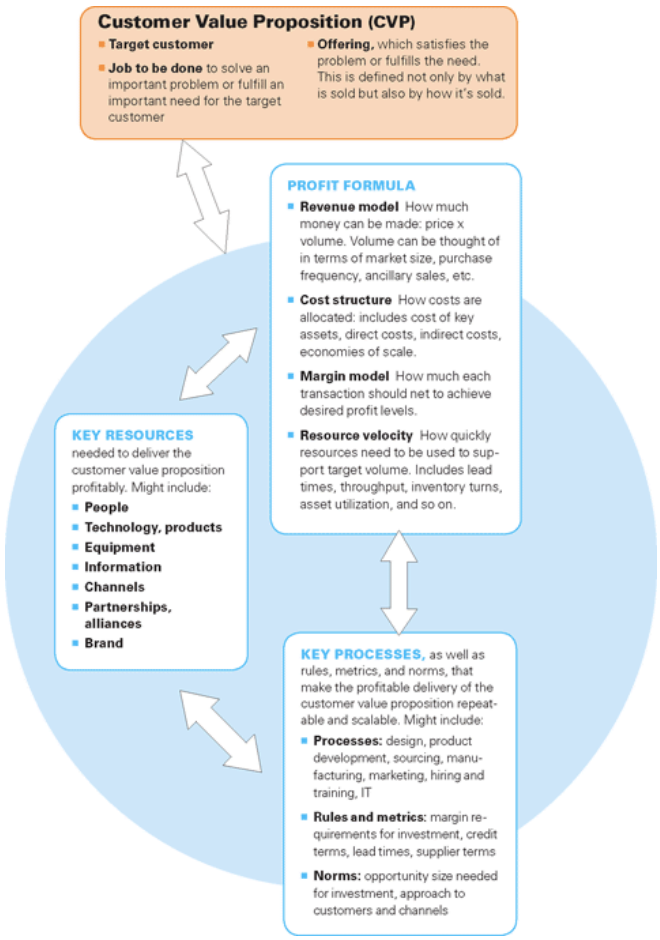



**Figure 2.14 The Elements of a Successful Business Model**
from (Johnson et al., 2008)

As shown in Figure 2.14, the 'Elements of a Successful Business Model' framework illustrates the interdependencies of the four elements, and also offers examples and guidance to help understand the types of things that belong within each of the four elements. The framework uses two-way arrows to connect each of the elements. For example, the arrow connecting key resources and customer value proposition implies that the value proposition a company is able to make is dependent on the resources that the company has access to, and simultaneously the value proposition (and everything that is factored into that value proposition) drives the company to seek access to key resources. The framework suggests that key resources might come in the form of people, technology, products, equipment, information, channels, partnerships, alliances and brand. Compared to the Business Model Canvas, the Elements of a Successful Business Model framework is more explicit as to how the various elements of the BM relate to one another.

### 2.4.3 Social Business Model

The social business model (SocBM) framework publication that has gained the most prominence in the academic literature comes from Yunus et al. in *Long Range Planning*. The researcher chose to closely study a framework from the SocBM literature for multiple reasons, the first being the relevance of social innovation to the healthy food ventures. Another reason the researcher chose to study a SocBM framework was due to the role that the SocBM has been given within the general business model literature. Scholars suggest that the SocBM is an example of a specific type of BM that can be achieved through BMI (Foss & Saebi, 2016).

The SocBM framework is presented alongside a definition of the social business concept and examples from empirical case studies. Yunus et al. define the social business concept in the context of their study as: "a self-sustaining company that sells goods or services and repays its owners' investments, but whose primary purpose is to serve society and improve the lot of the poor" (Yunus et al., 2010). Figure 2.15 illustrates the framework that emerged from their research, juxtaposed to a conventional BM framework. Yunus et al. present two key insights specific to social business models: the importance of 1) favouring social profit-oriented shareholders and 2) specifying social profit objectives clearly and early on.

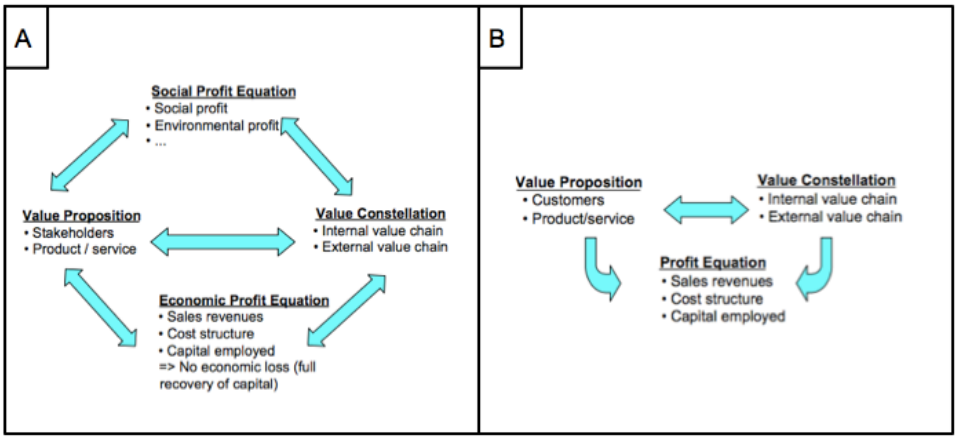



**Figure 2.15 Social business model (A) and conventional business model (B)** from (Yunus et al., 2010)

### 2.4.4 The Value Mapping tool

The Value Mapping tool has been developed and refined by researchers at the Centre for Industrial Sustainability, the research centre that the present researcher chose to join for this PhD research. The Value Mapping tool is a framework that has

been designed specifically for sustainable business modelling (Bocken et al., 2013). The researcher understands a sustainable business model to be defined through the propositions put forward by Evans et al.:

- Proposition 1: Sustainable value incorporates economic, social and environmental benefits conceptualised as value forms
- Proposition 2: [Sustainable business models] require a system of sustainable value flows among multiple stakeholders including the natural environment and society as primary stakeholders

  (Evans et al., 2017)

Like the social business model, the sustainable business model (SusBM) is of interest for the present research because of its relevance to healthy food ventures (e.g., their social, and sometimes environmental, objectives) and its relationship to business model innovation. Scholars suggest that SusBMs can be achieved through business model innovation (Evans et al., 2017; Jolink & Niesten, 2015; Schaltegger, Lüdeke-Freund, & Hansen, 2012). In turn, close examination of the Value Mapping tool was anticipated to potentially unlock further understanding about BMI.

The systematic search of "sustainable business model" in the online databases suggests several SusBM frameworks to be more prominent than the Value Mapping tool if the researcher measures prominence by citation count. For example, Stubbs and Cocklin share a visual representation of their sustainable business model framework in a journal article that has received nearly three times the citation count of the journal article that introduced the Value Mapping tool—e.g., Scopus reports 156 versus 58 citations for the respective papers, although it is important to note that Stubbs and Cocklin's paper is 5 years older, and therefore able to receive citations for 5 years longer, than Bocken et al.'s paper (Bocken et al., 2013; Stubbs & Cocklin, 2008). Figure 2.16 presents Stubbs and Cocklin's framework.

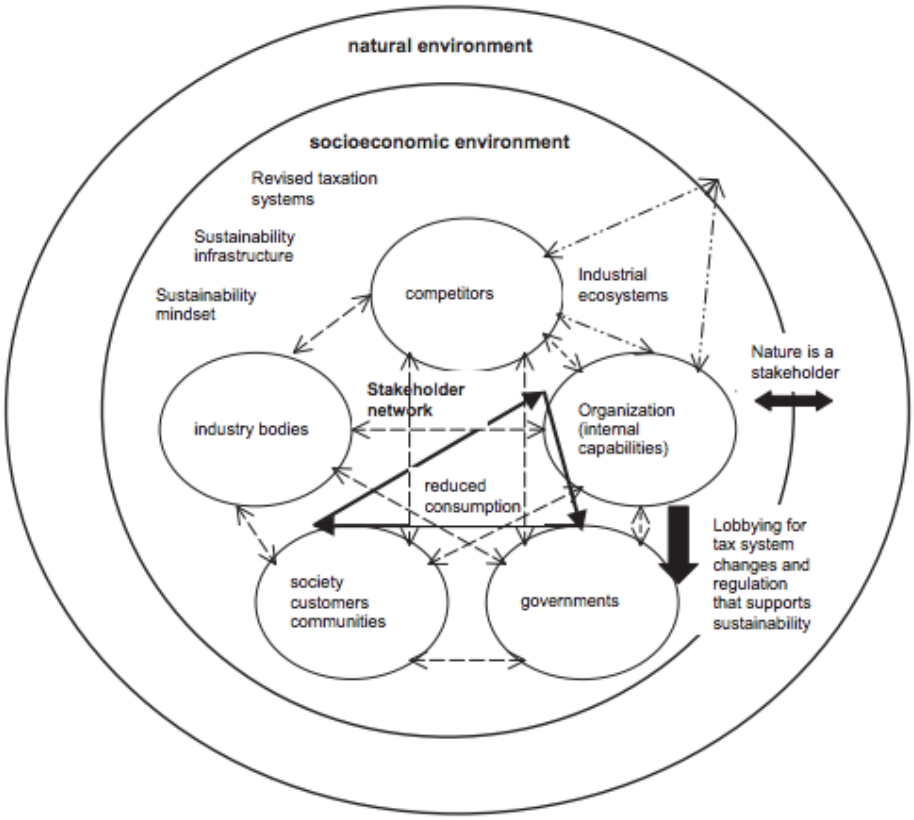



**Figure 2.16 An Illustration of a Systems-Based [SusBM]**
from (Stubbs & Cocklin, 2008)

Additionally, the researcher recognizes that citation count is only a proxy for academic acceptance. Having been in such close proximity to the Value Mapping tool, the researcher had the opportunity to observe first hand its acceptance by academics and practitioners alike.

The Value Mapping tool was published in an academic journal in 2013, but has evolved since then. Figure 2.17 presents the current design of the Value Mapping tool. While the current version of the tool has largely maintained the understanding of purpose, stakeholders and value captured that were presented in 2013, the understanding of value uncaptured has since progressed (Bocken et al., 2013; Yang et al., 2017). Figure 2.17 presents the tool, and Table 2.8 summarizes the understanding of the terminology used in the Value Mapping tool.

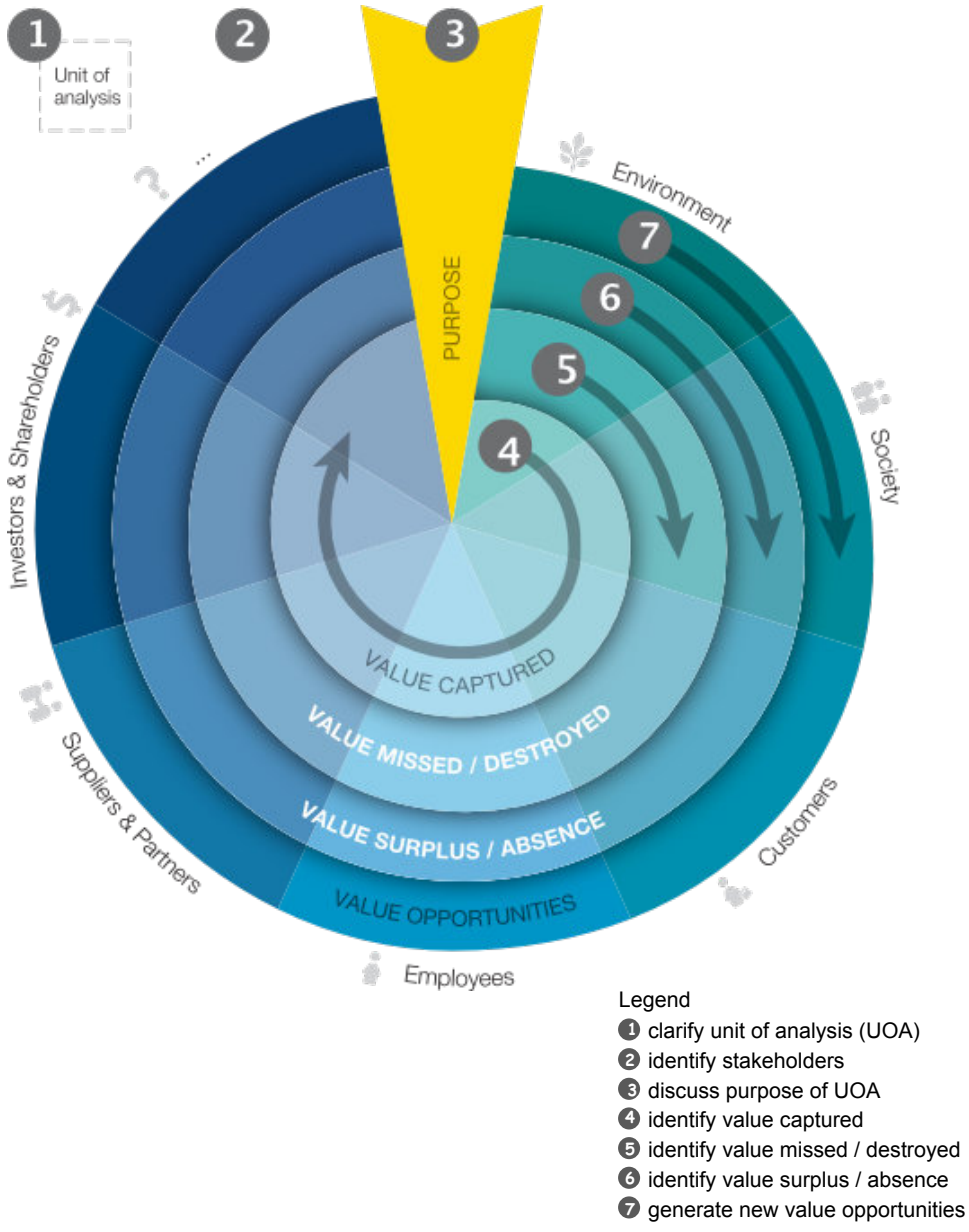



**Figure 2.17 Value Mapping tool**
from (CIS, 2016), adapted with legend

**Table 2.8 Value Mapping tool terminology**

| Term | Understanding | Source |
|---|---|---|
| Purpose | A high-level explanation for why the firm exists | (Bocken et al., 2013) |
| Stakeholders | Individuals and groups who have an interest in the firm; all stakeholders (not just the customer stakeholders) receive value propositions from the firm | (Bocken et al., 2013) |
| Value captured | "The value proposition of the network, which represents the benefits delivered to stakeholders for which payment or another value exchange takes place" | (Bocken et al., 2013) |
| Value uncaptured | "The potential value that could be captured but has not been captured" | (Yang et al., 2017) |
| Value destroyed | "Value with negative consequences" | (Yang et al., 2017) |
| Value missed | "Value which exists and is required, but is not exploited" | (Yang et al., 2017) |
| Value absence | "Value which is required, but does not exist" | (Yang et al., 2017) |
| Value surplus | "Value which exists, but is not required" | (Yang et al., 2017) |

### 2.4.5 Business model frameworks in summary

As explained at the start of Section 2.4, the researcher chose the four frameworks based on their prominence and proximity. Despite the many review papers about the BM and BMI, the researcher was unable to find a review paper that collates all of the BM frameworks that have been represented visually. In the researcher's review of the vast BM literature, the researcher came across other visual representations of BM frameworks, which practitioners theoretically may use to better understand, design and innovate their BMs. Such visual representations include the Systems-Based [SusBM] (Stubbs & Cocklin, 2008), the Business Model Cube (Lindgren & Rasmussen, 2013) and the Business Model Prism (Schiuma & Lerro, 2017).

However, the researcher decided to do a deep dive into the four presented frameworks as a counter-approach to the observed superficiality of the BM literature. The researcher made the general observation from reading across the BM literature that scholars in the field appear sometimes to communicate past one another, without really trying to understand the concepts, frameworks and theories that their fellow scholars have proposed. By focusing on just four frameworks, the researcher attempted

to obtain an understanding of the concepts and ideas that each framework's authors had proposed.

Visual representations of BM frameworks, and especially the four frameworks presented, exemplify one approach that academic scholars have taken to close the gap between the academic discourse about the business model and its practical understanding and use amongst practitioners. This type of BM framework can be used by practitioners who seek a better way to map out their ventures' BMs. Such frameworks can potentially bring more understanding to the BM construct than written definitions alone.

The latter two frameworks—the Social Business Model and the Value Mapping tool—illustrate the concepts of the SocBM and the SusBM, respectively, and suggest that the conventional BM concept does not sufficiently account for the creation of nonfinancial value. As this research explores ventures that aim to create value forms relating to health, it makes sense to closely study the literature that brings more clarity to nonfinancial value forms. The next section offers a deeper dive into the concept of the sustainable business model, which incorporates the theory of the social business model.

## 2.5 The sustainable business model

The sustainable business model is a business model that involves the exchange of economic, environmental and social value forms in order to maximise the triple bottom line (Evans et al., 2017). In the sustainability literature, the 'triple bottom line' (TBL) refers to three levels of value—economic, environmental and social (Stubbs & Cocklin, 2008). Upon reviewing the sustainable business model literature, several themes emerge. The SusBM definitions in Table 2.9 emphasize these themes. Within the definitions, the bold text corresponds to the themes that will be discussed further.

**Table 2.9 Selection of sustainable business model definitions**

| Source | Definition | Themes |
|---|---|---|
| (Stubbs & Cocklin, 2008) | A model that "draws on economic, environmental and social aspects of sustainability in defining **an organisation's purpose**...uses a TBL approach in measuring performance...**considers the needs** of all **stakeholders** rather than giving priority to shareholders' expectations...treats nature as a stakeholder and promotes environmental stewardship...encompasses the **systems perspective** as well as the firm-level perspective" | • purpose<br>• stakeholder perspective |

| Source | Definition | Themes |
|---|---|---|
| (Lüdeke-Freund, 2010) | "A business model that creates competitive advantage through superior customer value *and* contributes to a sustainable development of the company *and* society can be interpreted as a sustainable business model and an organisational eco-innovation. Since customer value is the strategic nexus of any business model, sustainable business models are crucial for creating **extended customer value for individual customers and society**." | • stakeholder perspective |
| (Bocken et al., 2014) | A vehicle to coordinate technological and social innovations with system-level sustainability...[a vehicle that] **aligns interests** of **all stakeholder groups**, and explicitly considers the environment and society as key stakeholders | • stakeholder perspective |
| (Evans et al., 2017) | "[SusBMs] require a system of sustainable value flows among **multiple stakeholders** including the natural environment and society as primary stakeholders... a **value network with a new purpose**, design and governance... a **systemic consideration of stakeholder interests** and responsibilities for mutual value creation." | • stakeholder perspective<br>• purpose |

### 2.5.1 Purpose

Purpose is an important concept in the sustainability literature. It is often juxtaposed to financial profit in the general business scholarship—e.g., purpose versus profit (Osterwalder & Pigneur, 2011). Mirvis et al. equate purpose with the mission of the company—"Mission is the 'Why:' the organisation's answer to why we exist (purpose)" (Mirvis, Googins, & Kinnicutt, 2010). Company vision, mission and culture are suggested as guideposts to sustainability (Mirvis et al., 2010).

### 2.5.2 Stakeholder perspective

The importance of the stakeholder perspective has emerged throughout the chapter, however the researcher has not yet explicitly acknowledged the stakeholder literature. 'Stakeholder theory' is the scholarship that focuses on the centrality of the stakeholders to business practice (Parmar, Freeman, Harrison, Purnell, & De Colle, 2010). Stakeholder theory stresses the importance of considering perspectives of individuals and groups beyond the customers and shareholders. Harrison et al. suggest that business leaders must find ways to address the needs of a broad group of stakeholders and manage stakeholder conflicts (Harrison, Bosse, & Phillips, 2010).

Evans et al. build on this notion and describe the importance of a network of key stakeholders within the sustainable business model context, emphasizing that stakeholder connections benefit both their individual goals and the common goal of the network (Evans et al., 2017).

Organisations might consider the concept of empathy while trying to adopt stakeholder perspectives. There are a number of different techniques that have been proposed to better empathise with the customers and users of a business' products and services. Such strategies are discussed using terminology such as empathic design, co-creation and user-centred design, among others. In a book addressing innovation design, scholar Elke den Ouden encourages designers to contemplate the motivations of value network actors, describing motivations as interests, intentions and goals (den Ouden, 2012). BM scholars have suggested that an important piece to establishing a value proposition is understanding the 'jobs' that customers aim to accomplish in their work and daily lives (Johnson et al., 2008; Osterwalder et al., 2014). Evans et al. describe the possibilities of empathic design techniques (i.e., techniques that employ empathy to identify and understand user needs and desires) to generate innovation opportunities and minimise the market- and design-related risks (Evans, Burns, & Barrett, 2002).

### 2.5.3 Externalities and tradeoffs

While the concepts of externalities and tradeoffs do not appear explicitly in the Table 2.9 definitions, they are other themes that appear frequently in the sustainability literature. An externality is understood as the negative consequence (cost) or positive consequence (benefit) of a human activity that is ultimately felt by a subject who did not have a choice in the matter (Pigou, 1932). Pollution is a common example of an externality. A new factory might cause pollution that is felt by a local community. Sustainability scholars increasingly suggest that it is possible to structure business models to internalize externalities (Bocken et al., 2013; Evans et al., 2017; Tukker & Tischner, 2006).

Another dominant discussion in the sustainable business model literature is the tradeoff, i.e., the implementation of one option at the cost of another (Smith et al., 2010). Some business model scholars suggest that it is possible to limit tradeoffs by redefining the boundaries of the business and the understanding of success (Bocken et al., 2013; Porter & Kramer, 2011).

The concept of the externality is especially relevant to the present research problem. The health costs that stem from the conventional food system are increasingly framed as externalities (Caraher & Coveney, 2004; Lang, 2003; Preety et al., 2001). We can consider the example of the supermarket buy-one-get-one-free (BOGOF) deal through the lens of externalities. Supermarkets often have BOGOF deals on snacks like biscuits and crisps. These deals seem great until we consider the negative health externalities that ensue from eating too much. Major supermarkets have started to phase out BOGOF deals in recognition of their contribution to overconsumption (Smithers, 2016). Given the presence of negative health externalities in the current research context, the SusBM insights around internalising externalities might be useful.

## 2.6 The business model literature—where we have been

Thus far, this thesis has focussed on the BM literature about the BM at the conceptual level. Osterwalder et al. suggest a BM hierarchy that helps illustrate where such discussion sits within the greater BM literature (Osterwalder et al., 2005).

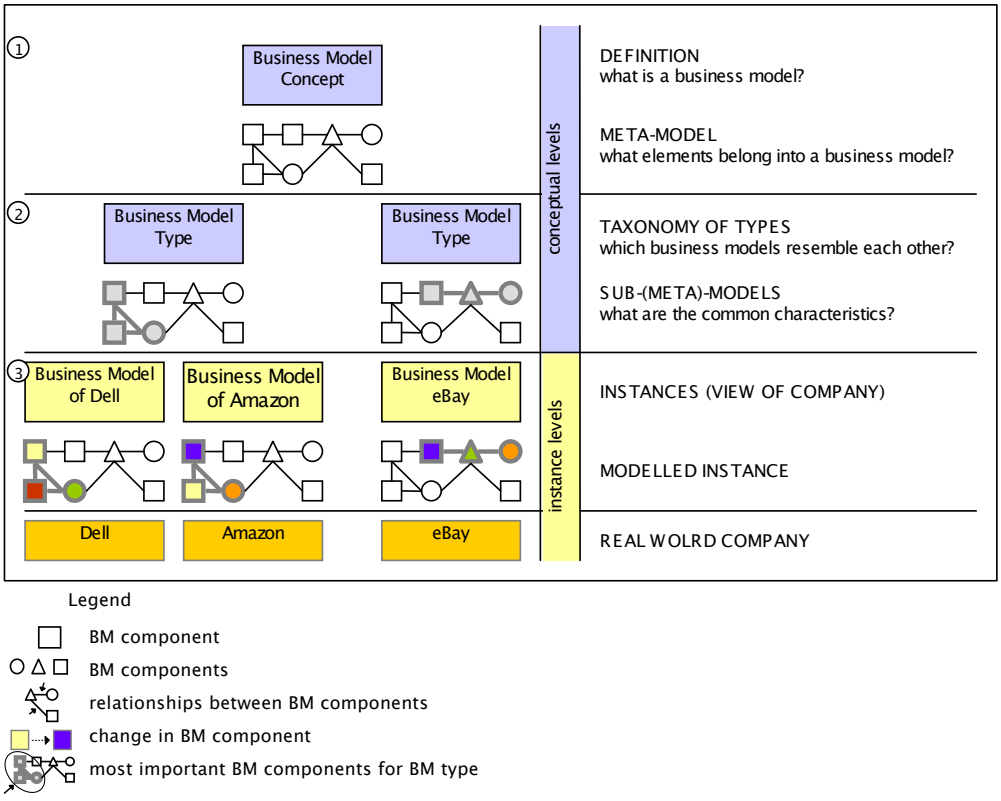



**Figure 2.18 Business model concept hierarchy**
from (Osterwalder et al., 2005), adapted with legend

As discussed in the previous sections, there is quite a difference in conceptual clarity between the frameworks (described as meta-models in Figure 2.18) at the level of the value constructs and those at the level of the Business Model Canvas. Figure 2.19 presents how the researcher has modified the Business Model Concept Hierarchy to reflect the range of detail included within BM frameworks.

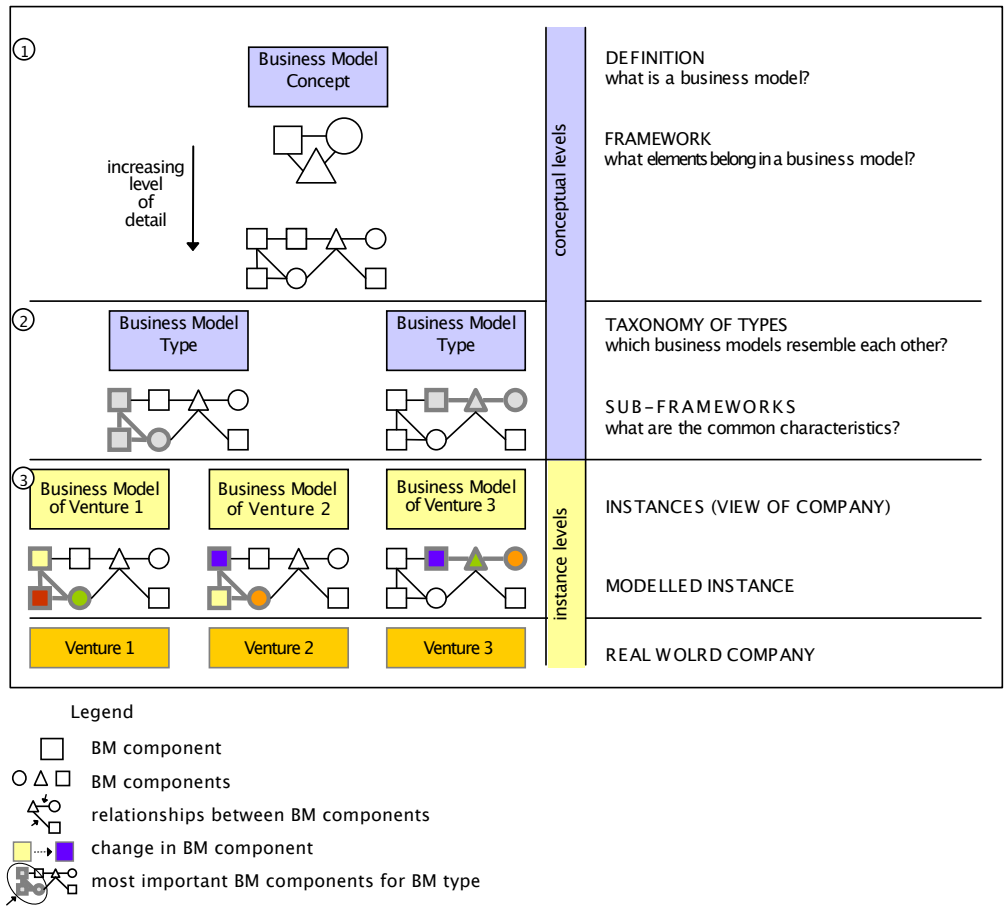



**Figure 2.19 Researcher's modified business model concept hierarchy**

The majority of the BM literature discussed within this chapter falls into the first level of the hierarchy; however there have been exceptions. The chapter has reviewed a SocBM framework and a SusBM framework. These two frameworks are examples of sub-frameworks, which sit in the second level of the hierarchy. In the introduction, the researcher offered the example of the Airbnb business model. Such an example is represented within the third level of the hierarchy. Figure 2.20 offers a visual illustration.

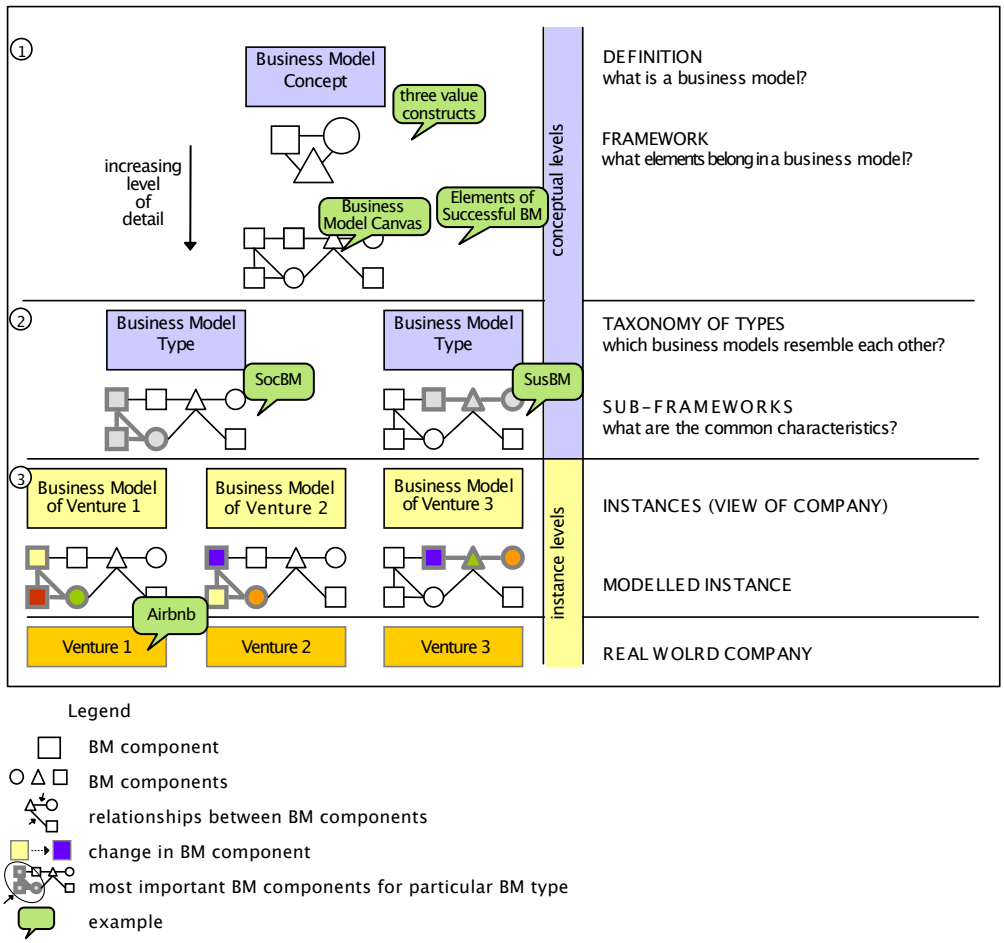



**Figure 2.20 Examples mapped to business model concept hierarchy**

## 2.7 Returning to healthy food and the business model

This BM knowledge has equipped the researcher with the criteria to determine which of Section 2.1's search results warranted further reading. The researcher examined the abstracts (and abstract excerpts in the case of Google Scholar) to find any suggestion that the publication might discuss business models in the value-based sense of the concept. The most relevant publications are described at the end of the section. Before introducing those publications, it is important to 1) capture the high level observations from the systematic literature review and 2) describe the method that was used to find additional publications of relevance.

Several themes emerged as the researcher reviewed the search results. The researcher observed that the use of the term business model in the search results was often superficial and exemplified Ghaziani and Ventresca's 'tacit conception' frame. Business model was seemingly being used in the sense of Magretta's 'way of doing business'. The publications often made vague or sweeping statements about the importance of new business models with respect to food and health and positioned the

healthy food category as an opportunity. The following paper excerpts exemplify these themes.

- "[Food industry practitioners] believed that consumer choice is increasingly influenced by environmental and health priorities and that adapting to these trends would be important for future business success...The food and beverage industry needs time, resources and expertise to adapt their business model and to find new palatable products that meet healthy Guidelines" (Vander Wekken, Sørensen, Meldrum, & Naylor, 2012).
- "Beneficial modifications in our food supply based on a business model could be accomplished if agriculture and industry are incentivized to create a healthier environment with fewer concentrated food substances" (Johnson, 2013)

Other themes that emerged during the literature review were the importance of multi-disciplinary collaboration and new paradigms with respect to healthy food initiatives. Many of the search results were too broadly focused—e.g., "Food Production Systems, Trade, and Transnational Corporations: A Global Value Chains Approach to Consumption and Healthy Diets" (Gereffi & Christian, 2008), or too narrowly focused—e.g., "Innovation strategies for functional foods and supplements: Challenges of the positioning between foods and drugs" (Bröring, 2010), to help the researcher answer the research questions.

The systematic literature review approach enabled the researcher to develop a general understanding of the state-of-the-art with respect to the publications in the overlap of the academic literatures covering business models and healthy food. However, it was possible that there was relevant research somewhere else that did not use the BM terminology. The researcher also recognized that it was unlikely that the "health* food" search term captured all of the publications of potential relevance. For this reason, the researcher pursued further literature through alternative methods.

In the first year of the research, the researcher conducted interviews with academic researchers expert on healthy food or the intersection of food, health and business in an effort to discover additional publications. The interviewees spanned the disciplines of public health, law, policy, nutrition, marketing, behavioural economics, and business management. Interviewees shared reading recommendations with the researcher, which were then used to snowball into other publications. This multi-faceted search approach led the researcher to review 500+ papers across the multidisciplinary body of literature covering food, health and business. The following

paragraphs describe the publications that the researcher determined to be the most relevant with regard to the present research.

**Food Delivery Solutions: Cases of solution oriented partnership**
(Manzini et al., 2004)

The purpose of this research was to test and refine a methodology—the Solutions Oriented Partnership—in order to develop real-world sustainable product-service systems (PSS) for customers with reduced access to food. The PSS solutions were developed, piloted and studied through an action research approach. The term 'business model' appeared throughout the text, but in a superficial use (e.g., the PSS pilots offered the various partners the opportunity to extend and enhance their business models). The publication stressed the development of partnerships amongst unlikely partners, the consideration of user benefits, the contextualization of solutions and the leveraging of local resources.

**Foresight Tackling Obesities: Future Choices – Project report**
(Butland et al., 2007)

The purpose of this project was to better understand the factors underlying obesity and identify the most effective interventions and country-level strategies to tackle obesity. One of the data collection methods was a scenario development process, which was used to identify the drivers for change with respect to obesity. New business models—accompanied by the commentary "profit may not be the maximiser of the future"—were identified as one of these drivers. The report stresses the need for further development of methodologies and common languages that can facilitate the multidisciplinary collaboration that is required to tackle such an issue. The report also stresses the tensions around the different perspectives on who is to be held responsible for obesity (e.g., individual or environment). The report calls for a paradigm shift with respect to the 'business-as-usual' food system that is built around selling more food.

**Chapter 6: Designing Ecosystems**
(den Ouden, 2012)

The final chapter in den Ouden's *Innovation Design* book explores the example of a healthy food business model to demonstrate the use of the Value Flow Model. Den Ouden proposes the Value Flow Model as a tool to design 'new' business models that require new ecosystems, as opposed to the Business Model Canvas which is better suited for 'traditional' business models that feature traditional supply chains. The Value Flow Model is built upon several steps, which involve the identification of stakeholders and their interests. Figure 2.21 demonstrates the Value Flow Model method for mapping out the movement of value amongst stakeholders. The method takes into account the motivation, compatibility and influence of the stakeholders within the business model ecosystem.

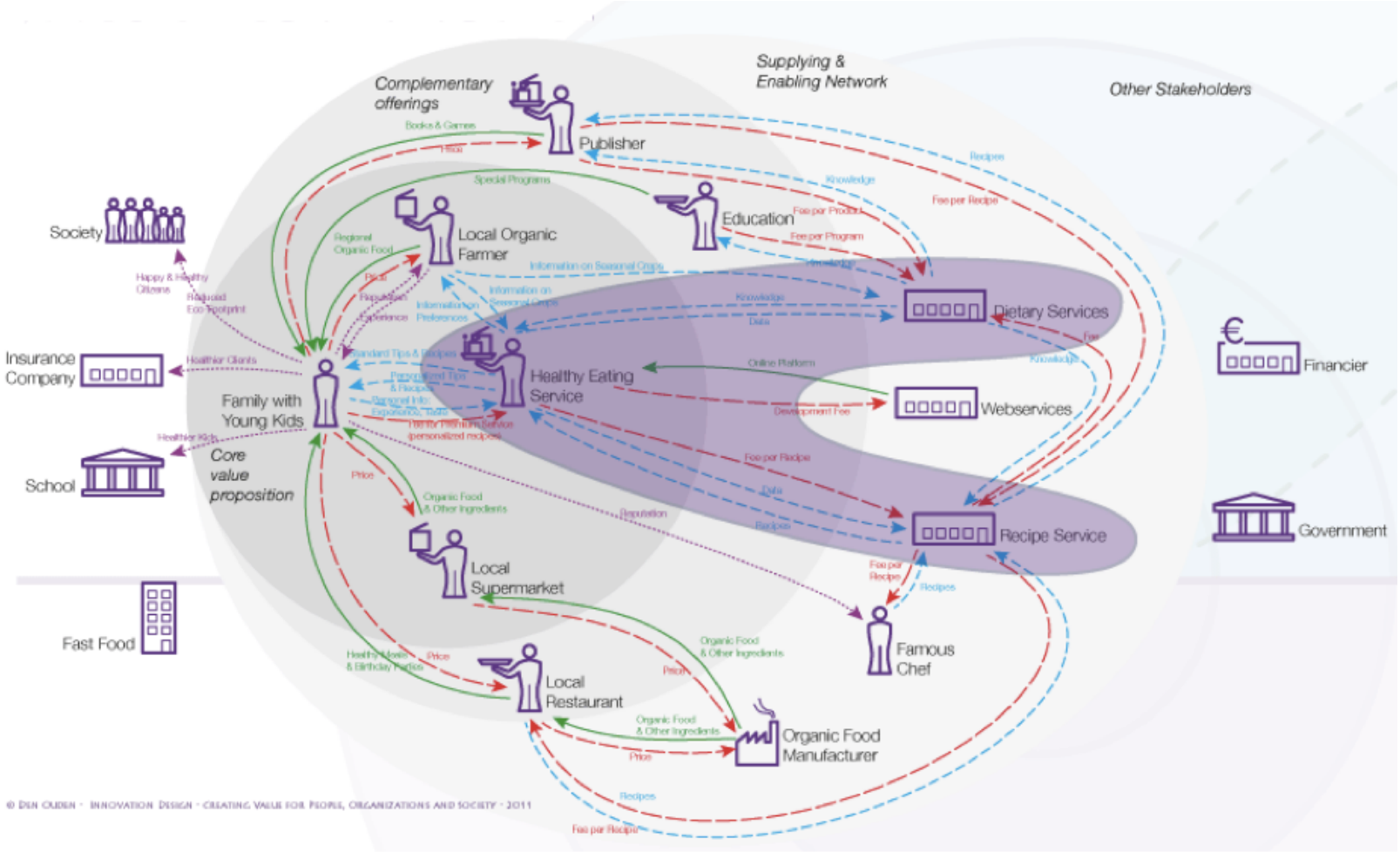



**Figure 2.21 Value Flow Model**
from (den Ouden, 2012)

The Value Flow Model is another example of an actionable business model framework, which the researcher could have explored alongside the frameworks in Section 2.4; however upon initial review, the researcher agreed with scholars' criticisms that frameworks such as den Ouden's Value Flow Model and Allee's Value Network Analysis framework would be too complicated and time consuming for the purpose of mapping out a business model, especially if the intention was for use in a data collection setting with practitioners (Allee, 2008; Bocken et al., 2013).

**A Cash-Back Rebate Program for Healthy Food Purchases in South Africa: Results from Scanner Data**
(Sturm, An, Segal, & Patel, 2013)

This paper evaluates the effectiveness of the HealthyFood program in increasing healthy food expenditure. The HealthyFood program is offered through South African health insurer Discovery in partnership with one of the country's largest supermarket chains (78% market share), Pick n Pay. The HealthyFood program offers eligible users a 10-25% discount on healthy food items. The authors evaluated the program using statistical analyses, which suggested that the price incentives did have a positive effect on healthy food purchases. Sturm et al. did add the caveat however, "Changes in purchases are commensurate with price changes, but even a large price change for healthy foods (e.g., 25%) can at best address a small part of the discrepancy between population dietary patterns and dietary guidelines."

The remaining publications selected as most relevant are presented in Table 2.10.

**Table 2.10 Selection of publications addressing food, health and business**

| Title | Author | Description |
|---|---|---|
| HealthPartners adopts community business model to deepen focus on nonclinical factors of health outcomes | (Isham, Zimmerman, Kindig, & Hornseth, 2013) | Explains how HealthPartners created a business model to address the 3 nonclinical factors contributing to health outcomes (health behaviours, social/economic factors, and physical environment), often collaborating with organisations better positioned to tackle those factors (e.g., school for healthy eating campaign) |
| Rethinking research: Creating a practice-based agenda for sustainable small-scale healthy food retail | (Karpyn & Burton-Laurison, 2013) | Identifies six focus areas for increasing small-scale healthy food retail: 1) financing, 2) distribution, 3) marketing research, 4) policy barriers and opportunities, 5) multisector collaboration, and 6) store owner skills and capacity. |
| Chez Panisse: Building an open innovation ecosystem | (Chesbrough, Kim, & Agogino, 2014) | Uses an open innovation framework to illustrate the entrepreneurial incubation stemming from the Chez Panisse restaurant that prioritises healthy ingredients |
| Food is Medicine: Opportunities in Public and Private Health Care for Supporting Nutritional Counseling and Medically-Tailored, Home-Delivered Meals | (Ellwood et al., 2014) | Builds the case for integrating medically tailored food and nutrition interventions into public and private health insurance services. |
| Food is Prevention: The Case for Integrating Food and Nutrition Interventions into Healthcare | (Downer et al., 2015) | Builds the case for integrating food and nutrition interventions into health care, illustrated through several examples of successful programs. |
| Value proposition Canvas: Identification of Pains, Gains and Customer Jobs at Farmers' Markets | (Pokorná, Pilař, Balcarová, & Sergeeva, 2015) | Brings a business model tool (e.g., Value Proposition Canvas) to a business proposition centred on healthy food—the Farmer's Market. |

| Title | Author | Description |
|---|---|---|
| Personalised nutrition and social justice: Ethical considerations within four future scenarios from the perspective of Nussbaum's capabilities approach | (Nordström & Goossens, 2016) | Uses scenario planning to explore the ethics of two hypothetical business model concepts involving personalized nutrition. Does not go into details of how business model concepts emerged, other than their alignment with the dominant logic, key activity and governance type of the imagined scenarios. |
| Exploring industry perspectives on implementation of a provincial policy for food and beverage sales in publicly funded recreation facilities | (Vander Wekken et al., 2012) | Qualitative research study to understand the industry perspective on integrating healthier foods into recreation facility food services, particularly vending machines, per the introduction of new healthy guidelines |

The review of the literature in the healthy food and business model overlap has revealed that there is very little literature that digs below the surface to understand the innovation *process* behind business models that aim to effect health outcomes through food interventions, henceforth referred to as healthy food business models. The extant literature offers both empirical and hypothetical examples of healthy food business models. Table 2.11 summarises the business model themes that have emerged throughout the literature review.

**Table 2.11 Business model themes across examples in literature**

| Themes | Sources |
|---|---|
| Healthy food retail (primarily due to retailer's choice) | (Chesbrough et al., 2014; Karpyn & Burton-Laurison, 2013; Pokorná et al., 2015) |
| Healthy food interventions integrating health insurance (e.g., incentives, educational programmes, personalized nutrition, medically tailored meals) | (den Ouden, 2012; Downer et al., 2015; Ellwood et al., 2014; Nordström & Goossens, 2016; Sturm et al., 2013) |
| Community-wide healthy food initiatives led by health care centres | (Downer et al., 2015; Isham et al., 2013) |
| Online comprehensive health platform with food recommendations (widely accessible through low user fee) | (Nordström & Goossens, 2016) |

While the literature discusses business ideas that encourage healthy food consumption, very few of these examples have yet to be explored from a BM or BMI perspective. Of the research publications presented here, only the den Ouden

publication explores a healthy food business model (which appears to be a generic hypothetical example) from an explicit business model perspective. The purpose of den Ouden's healthy food example appears to be about demonstrating the use of the Value Flow Model, not about offering insights into healthy food business models. The review of the literature covering business models in the food-health context suggests the need for further knowledge in a number of areas. Section 2.7.1 summarises the knowledge that exists with regard to healthy food business models, and clarifies that gap that this research aims to address.

### 2.7.1 Clarifying the gap

The hierarchy presented in Section 2.6 is a useful visual for communicating the strengths and weaknesses in the presently reviewed literature. Similar to the way that Section 2.6's Figure 2.20 maps out the thesis' coverage of the business model, Figure 2.22 illustrates how the previous section's discussion points map onto the hierarchy.

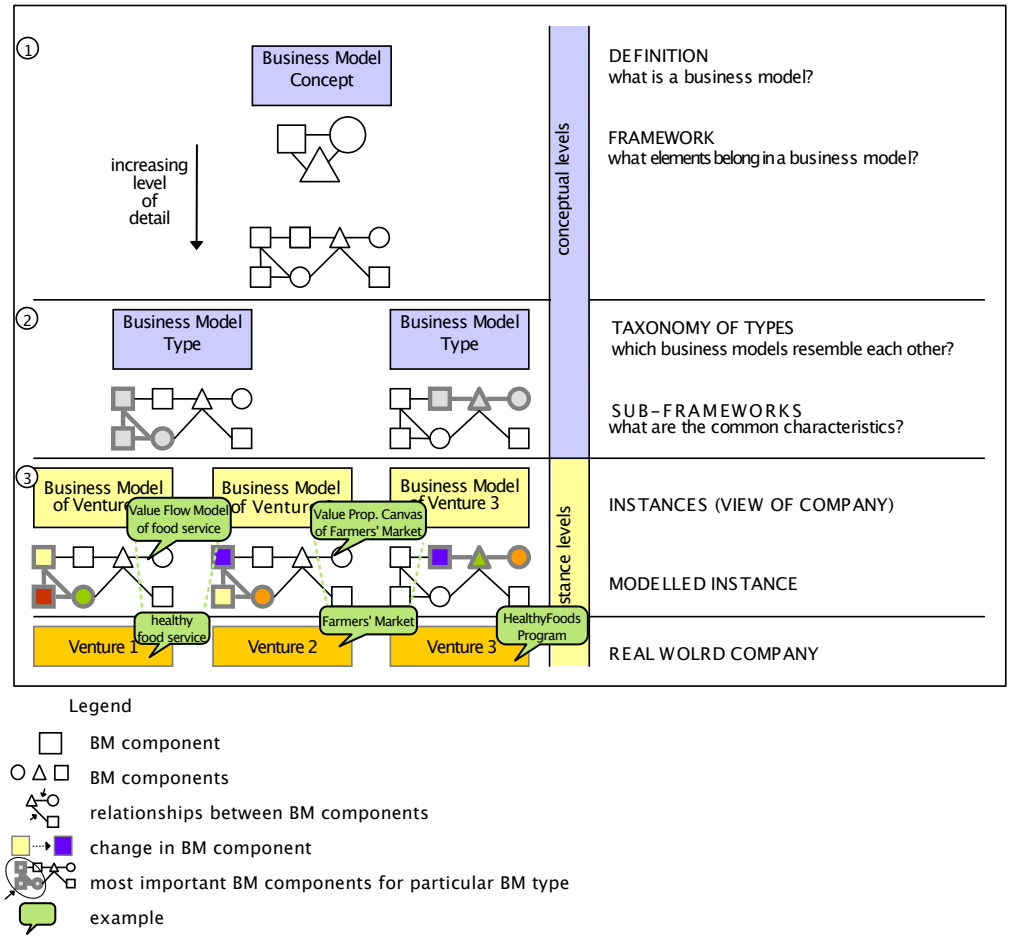



**Figure 2.22 Section 2.7 e.g.'s mapped to business model concept hierarchy**

As illustrated in Figure 2.22, the literature offers real world examples of business models that might be considered healthy food business models, however the bulk of the literature contributes to the bottom-most band of the third level of the hierarchy (see the green callout boxes of examples discussed in Section 2.7). The literature review uncovered just one example of a healthy food business model explained using the terminology and concepts embodied in the business model concept (den Ouden's Value Flow Model of the healthy food service). The review identified one example of a study into the value proposition of a specific Farmers' Market. The literature documents specific cases of healthy food business models, however the literature fails to synthesise the cases in accordance with the business model perspective, moving beyond the presentation of single case examples. This research attempts to close the gap by exploring cases of healthy food business models through the business model perspective.

## 2.8 Summary

This literature review has revealed a gap in knowledge concerning how we achieve the healthy food business models that are called for by thought leaders in this space. The literature presents hypothetical and empirical examples of healthy food business models, however there is little theory offered about how healthy food business models are created and managed. As shown throughout this chapter, scholars have discussed the BM construct as a tool that sheds light on how real-world BMs are invented, designed and implemented. However the review of the BM literature has revealed that the scholarly dialogue concerning the business model is often superficial. Visual frameworks, such as the four frameworks presented in Section 2.4, mitigate the superficiality by imparting the BM construct with increased clarity. Based on these literature gaps, the researcher has identified the opportunity to explore healthy food business models by studying healthy food ventures from the business model perspective.

# Chapter 3

## 3. Research design

### 3.1 Chapter overview

This chapter presents the decisions that were made within each layer of the research design. Saunders et al. suggest an onion analogy to illustrate the various layers of decisions that are involved in research design (Saunders, Lewis, & Thornhill, 2016). The researcher has modified Saunders et al.'s research onion to structure the discussion of the present research design. A variety of research philosophies, approaches, methodologies, time horizons, techniques and procedures were considered with regard to this research. Before diving into the layers of the research design, the chapter will first revisit the research problem, as it serves as the basis upon which the research design decisions were made.

### 3.2 Research problem

The research problem can be framed in terms of research objectives, questions and implications:

***Research objectives***

- Make contribution to knowledge about healthy food intervention within the business model context
- Make contribution to practice by offering entrepreneurs tools that help them to operate successful healthy food ventures

***Research questions***

- RQ1: What are the challenges faced by HFVs?
- RQ2: How do HFVs innovate their business models?

***Research implications***

- The research helps us understand how we might encourage or support healthy food ventures.

### 3.3 Research design layers

As introduced at the start of the chapter, the layers of research design can be illustrated using the shape of an onion. Figure 3.1 has been modified from Saunders et al.'s research onion to organise the discussion of the research design decisions.

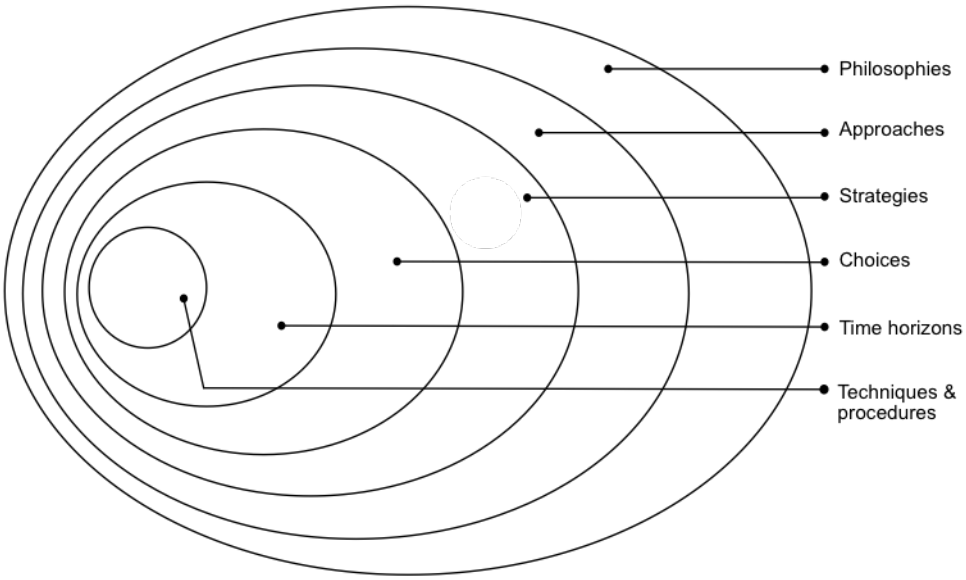



**Figure 3.1 Research onion**

The research objectives, questions and implications suggest that this research falls into the social science domain. Social science is understood as the study of how human behaviour influences the world around us (ESRC, 2017). The research seeks to describe and uncover insight about how the healthy food ventures have been challenged and developed. Consequently, the research onion layers are populated to reflect options for social science research.

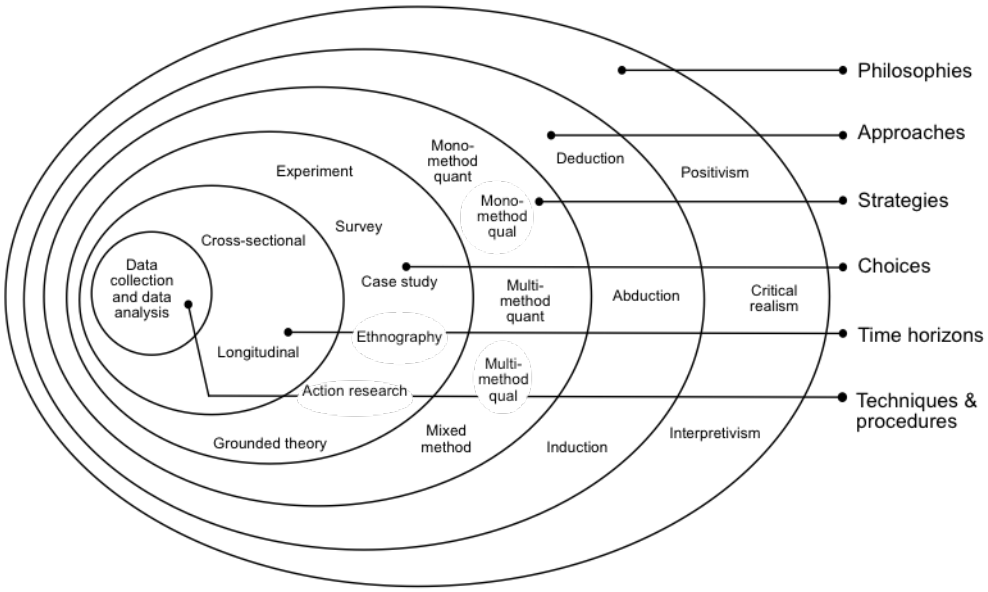



**Figure 3.2 Research onion with choices**

There has long been debate about how research, and social science research in particular, is appropriately conducted. Top management journals, such as the *Academy of Management Journal* (AMJ), have recognized the importance of discussing the diversity of social science research approaches, and in 2012, AMJ published a series of pieces about social science research methods (Bansal & Corley, 2012). In that AMJ series, Bansal and Corley write that researchers have substantial leeway in their approach to research; of primary importance is that researchers be transparent in how their research journey has unfolded (Bansal & Corley, 2012). In summary, the social science research community accepts a range of different approaches to research when applied and explained appropriately.

To plan the research design, the researcher first studied a range of philosophical positions with respect to social science research. The first subsection discusses the philosophies that were considered and the position that was ultimately assumed. The remaining subsections discuss the other layers of the researcher's decision-making, which led to the final research design.

### 3.3.1 Research philosophy

Research philosophy addresses questions of the nature of what we know and how we can know those things. There is a spectrum of philosophical positioning from which to approach social science research. For the purposes of this discussion, the spectrum will range from positivism at one extreme to interpretivism at the other. Positivism holds the view that social science researchers should seek to emulate the natural sciences in order to achieve scientific rigour. In practice this means that positivist researchers design their research protocol in accordance with the scientific method. This involves the formulation of a hypothesis that builds upon theory and the testing of that hypothesis through empirical data. Interpretivism holds the view that social science research is not dependent upon a hypothesis and instead places importance on description and interpretation within a researched phenomenon.

The researcher took time to study the positivist, critical realist and interpretivist positions on social science research, considering the positions within the context of the present research problem. Table 3.1 compares the philosophies.

**Table 3.1 Comparison of research philosophies**
from (Saunders et al., 2016)

| **Ontology** (nature of reality or being) | **Epistemology** (what constitutes acceptable knowledge) | **Axiology** (role of values) |
|---|---|---|
| **Positivism** | | ✗ |
| Real, external, independent<br>One true reality (universalism)<br>Granular (things)<br>Ordered | Scientific method<br>Observable and measurable facts<br>Law-like generalisations<br>Numbers<br>Causal explanation and prediction as contribution | Value-free research<br>Researcher is detached, neutral and independent of what is researched<br>Researcher obtains objective stance |
| **Critical realism** | | ✗ |
| Stratified/layered (the empirical, the actual and the real)<br>External, independent<br>Intransient<br>Objective structures<br>Causal mechanisms | Stratified/layered (the empirical, the actual and the real)<br>External, independent<br>Intransient<br>Objective structures<br>Causal mechanisms | Stratified/layered (the empirical, the actual and the real)<br>External, independent<br>Intransient<br>Objective structures<br>Causal mechanisms |
| **Interpretivism** | | ✓ |
| Complex, rich<br>Socially constructed through culture and language<br>Multiple meanings, interpretations, realities<br>Flux of processes, experiences, practices | Complex, rich<br>Socially constructed through culture and language<br>Multiple meanings, interpretations, realities<br>Flux of processes, experiences, practices | Complex, rich<br>Socially constructed through culture and language<br>Multiple meanings, interpretations, realities<br>Flux of processes, experiences, practices |

The researcher ruled out positivism and critical realism. Given the researcher's interest in helping entrepreneurs in this space succeed, the researcher immediately recognised that it would be inappropriate to conduct research from a positivist perspective. **The researcher could not realistically remain detached, neutral and independent of what was researched**. Having ruled out positivism, the researcher determined whether it was more appropriate to adopt a critical realist or interpretivist philosophy. Both research philosophies recognise the **significance of social construction**. The researcher could have arguably adopted either of these two philosophical perspectives. However, the researcher perceived critical realism to be **too limiting in its demand that the researcher remain as objective as possible**.

The norms of interpretivism most closely reflected the nature of the present research problem and the anticipated data/outcomes. In conducting research about the healthy food ventures, the researcher expected to collect and build from **complex, rich** data, which had been **socially constructed through culture and language**. This

research was anticipated to make contributions in the form of insights and tools that would be helpful for healthy food entrepreneurs. Insights and tools are forms of **new understandings and worldviews**. The researcher aligned with the perspective that in such a social science research endeavour, **the researcher is part of what is researched** and the **researcher interpretations are key to the contribution**. For all of these reasons, the researcher chose to conduct this research from an interpretivist perspective.

The viewpoints of a specific interpretivist perspective known as symbolic interactionism resonated with the researcher. Blumer articulates the three premises of symbolic interactionism (Blumer, 1986):

- "The first premise is that human beings act toward things on the basis of the meanings that the things have for them"
- "The second premise is that the meaning of such things is derived from, or arises out of, the social interaction that one has with one's fellows"
- "The third premise is that these meanings are handled in, and modified through, an interpretative process used by the person in dealing with the things he encounters"

In the context of this particular research endeavour, the researcher understood and accepted the critical role that she, as well as the people involved in the research context, would play in affixing meaning to words, objects and actions.

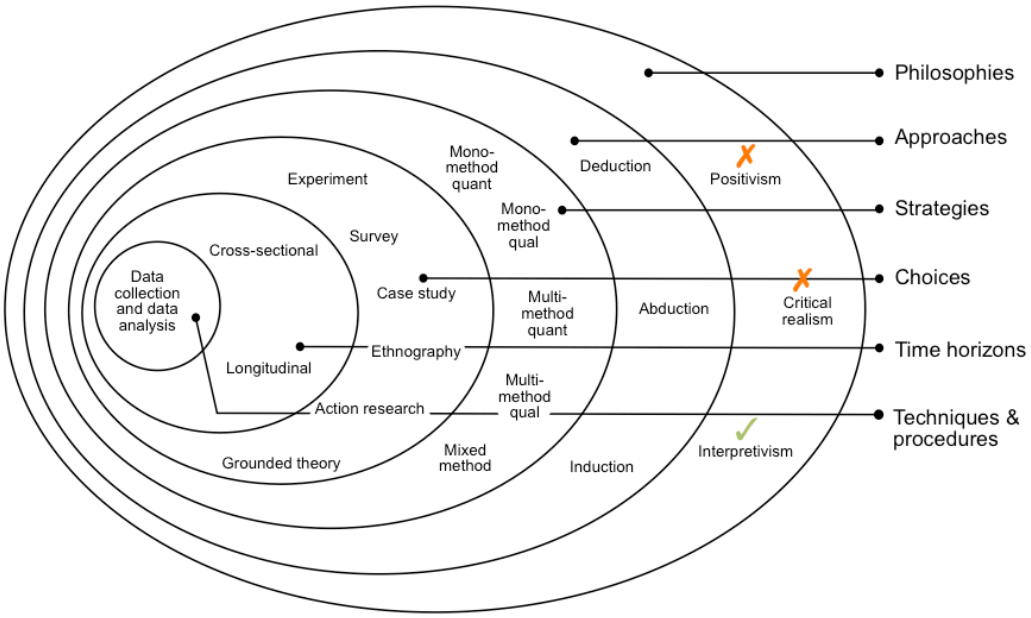



**Figure 3.3 Selection in research philosophy layer**

### 3.3.2 Research approach

There are three approaches to developing theory: deduction, induction and abduction. Table 3.2 explains the approaches.

**Table 3.2 Deduction, induction and abduction**
from (Saunders et al., 2016)

| | **Deduction** | **Induction** | **Abduction** |
|---|---|---|---|
| **Logic** | In a deductive inference, when the premises are true, the conclusion must also be true | In an inductive inference, known premises are used to generate untested conclusions | In an abductive inference, known premises are used to generate testable conclusions |
| **Generalisability** | Generalising from the general to the specific | Generalising from the specific to the general | Generalising from the interactions between the specific and the general |
| **Use of data** | Data collection is used to evaluate propositions or hypothesis related to an existing theory | Data collection is used to explore a phenomenon, identify themes and patterns and create a conceptual framework | Data collection is used to explore a phenomenon, identify themes and patterns, locate these in a conceptual framework and test this through subsequent data collection and so forth |
| **Theory** | Theory falsification or verification | Theory generation and building | Theory generation or modification; incorporating existing theory where appropriate, to build new theory or modify existing theory |

Given the researcher's aim to build upon the business model theory by studying business models within the specific context of healthy food ventures, the researcher selected an inductive approach. Induction is an approach that permits themes to emerge throughout data collection (Miles, Huberman, & Saldana, 2013).

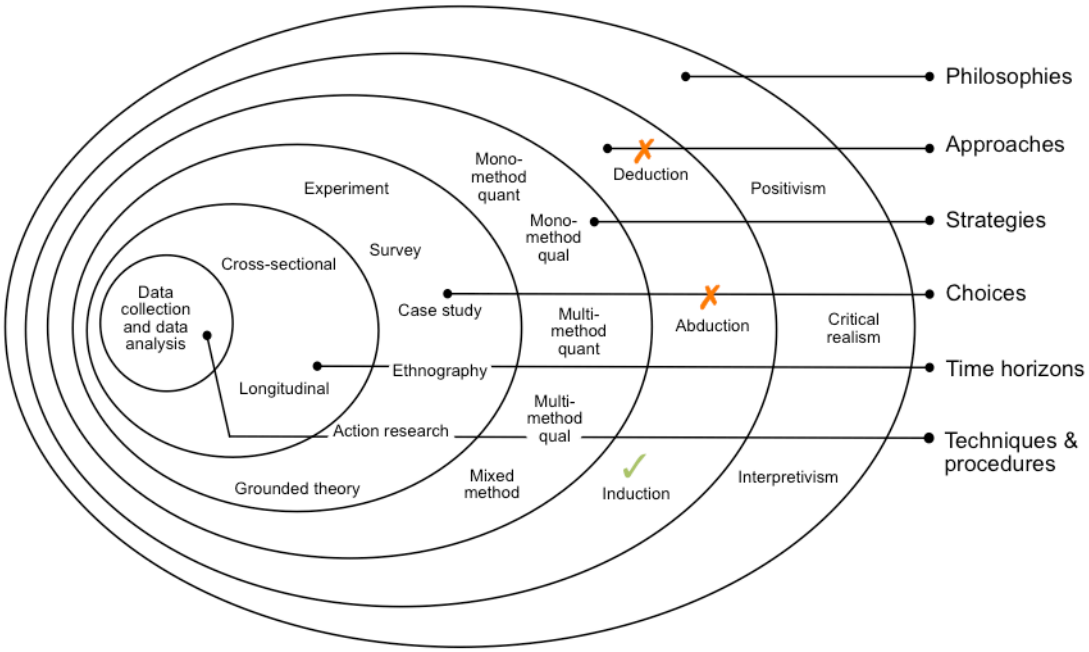



**Figure 3.4 Research approach selection**

### 3.3.3 Research methodological strategy

The methodological choice layer of the research design refers to whether the researcher uses a single method (mono method) or multiple methods to conduct the research. Decisions about quantitative and qualitative methods are also incorporated into this layer of the research design. Research that employs at least one quantitative and one qualitative method is called mixed methods. The researcher remained open to all five of the methodological choices presented in Figure 3.5, however as the research progressed it became clear that quantitative data would add little or no value to the research. There was insufficient history of the healthy food ventures to evaluate their impact in terms of hard numbers. Those ventures that were trying to obtain quantifiable measures were in the process of building statistically valid data sets. Even so, the quantitative data would not have been comparable across the diverse cases. The researcher decided to pursue a multi-method qualitative study in order to collect a range of exploratory and descriptive data that aligned with the research objectives and research questions.

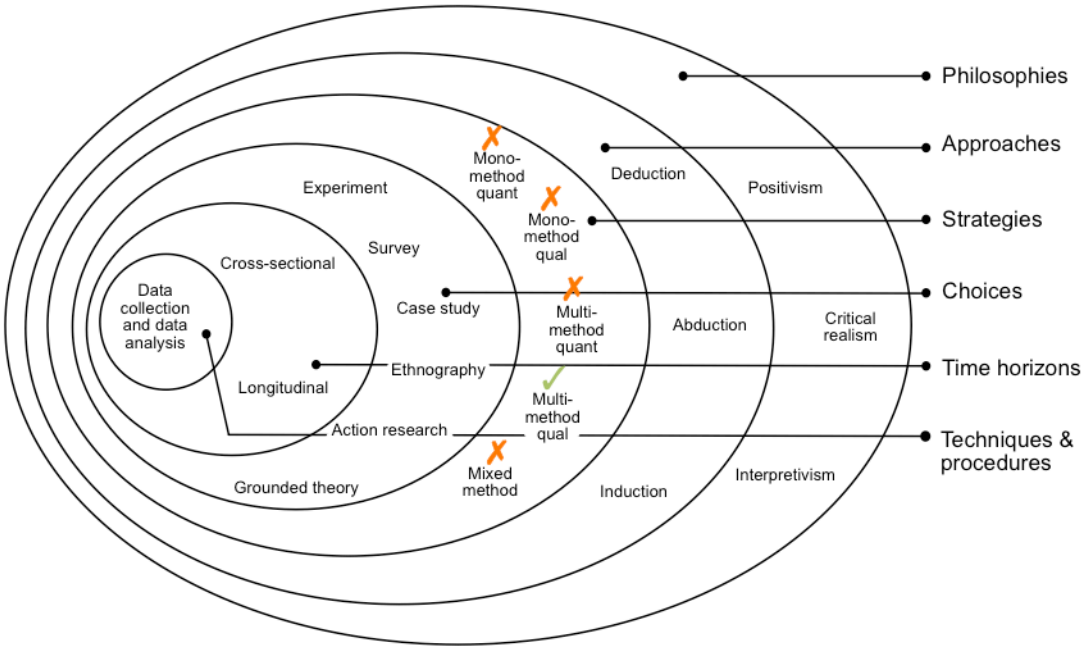



**Figure 3.5 Research methodological strategy selection**

### 3.3.4 Research methodology

The term *research methodology* is used in a number of ways, but here research methodology is used to communicate a standard package of research methods and norms. The researcher considered the range of methodologies that are presented in Figure 3.5—experiment, survey, case study, ethnography, action research and grounded theory. Each of the methodologies brings together a combination of different data collection and analysis methods, some of which are employed across multiple methodologies. For example, interviewing is a data collection method that is employed in both the case study and action research methodologies. The researcher decided to integrate multiple qualitative research methodologies because there were several methodologies that outlined methods to support the research aims.

Three of the six methodologies were dismissed. Experiment, survey and grounded theory methodologies were ruled out for the following reasons:

***Experiment***—The literature on the research topic of interest was of such nascency that the researcher was unable to identify variables that could be tested through an experiment methodology.

***Survey***—The literature on the research topic of interest was of such nascency that the researcher was unable to identify variables that could be studied through a survey methodology.

***Grounded theory***—In hindsight, the researcher recognises that the research resembles grounded theory. Birks and Mills suggest that grounded theory is appropriate when (Birks & Mills, 2015):

- "Little is known about the area of study."
- "The generation of theory with explanatory power is a desired outcome."
- "An inherent process is imbedded in the research situation that is likely to be explicated by grounded theory methods."

These three conditions are exemplified in the present research. However, the researcher initially understood grounded theory to be a methodology that rejected all existing theory. As the researcher expected to build on pre-existing BM theory, grounded theory was dismissed as a methodology.

Three methodologies were integrated into the multi-method qualitative approach, which enabled the researcher to study various cases of HFVs. The researcher ascertained case study, ethnography and action research to offer the greatest benefit to the present research.

### *Case study*

Case study methodology is an approach that is used to understand complex social phenomenon while retaining the holistic and meaningful characteristics of real-world events (Yin, 2008). Case studies traditionally involve the collection of six main sources of data: documentation, archival records, interviews, direct observation, participant-observation and physical artefacts, and within each of these sources there are a number of examples of how the data can be collected (Yin, 2008).

Due to the exploratory nature of this research, the researcher conducted interviews in an unstructured manner. There were three steps involved in the unstructured interview approach:

- The researcher established a shared interest with the interviewees by expressing her interest in working towards a sustainable food system
- The researcher asked questions to understand the process of starting and managing the venture

- The researcher asked questions to understand the barriers to starting and managing the venture

Yin juxtaposes the case study interview approach to the survey approach, emphasizing case study interviews to be "guided conversations rather than structured queries" (Yin, 2008). Throughout the interviews the researcher heeded the advice of Yin, remaining aware of how subtleties such as the researcher's questioning style (e.g., word choices and intonation) might be perceived by interviewees (Yin, 2008).

Table 3.3 provides examples of the different ways each data type can be collected, and highlights in bold font the data collection approaches used in this research. After Table 3.3, Table 3.4 presents Yin's suggestions about the strengths and weaknesses, which the researcher will further address in Section 3.5's overarching discussion of the strengths and weaknesses of the research design.

**Table 3.3 Six main data types and examples**
from (Yin, 2008)

| **Data type** | **Examples** |
|---|---|
| **Documentation** | Letters, **e-mail correspondence**, **notes**, agendas, **meeting minutes**, proposals, progress reports, **formal studies of the same "case"**, **news clippings** |
| **Archival records** | Public use files (e.g., census data), **client service records**, **survey data** |
| **Interviews** | Structured, semi-structured, **unstructured** |
| **Direct observation** | **Casual observation**, protocol-driven observation (e.g., assess occurrence of certain behaviours) |
| Participant observation | Non-passive observer (e.g., serving as key decision maker in case study setting) |
| **Physical artefacts** | **Technological device**, work of art, instrument |

**Table 3.4 Six Sources of Evidence: Strengths and Weaknesses**
from (Yin, 2008)

| SOURCE OF EVIDENCE | Strengths | Weaknesses |
|---|---|---|
| Documentation | • Stable—can be reviewed repeatedly<br>• Unobtrusive—not created as a result of the case study<br>• Exact—contains exact names, references and details of an event<br>• Broad coverage—long span of time, many events, and many settings<br>• | • Retrievability—can be difficult to find<br>• Biased selectivity, if collection is incomplete<br>• Reporting bias—reflects (unknown) bias of author<br>• Access—may be deliberately withheld |
| Archival records | • [*Same as those for documentation*]<br>• Precise and usually quantitative | • [*Same as those for documentation*]<br>• Accessibility due to privacy reasons |
| Interviews | • Targeted—focuses directly on case study topics<br>• Insightful—provides perceived causal inferences and explanations | • Bias due to poorly articulated questions<br>• Response bias<br>• Inaccuracies due to poor recall<br>• Reflexivity—interviewee gives what interviewer wants to hear |
| Direct observations | • Reality—covers events in real time<br>• Contextual—covers context of "case" | • Time-consuming<br>• Selectivity—broad coverage difficult without a team of observers<br>• Reflexivity—event may proceed differently because it is being observed<br>• Cost—hours needed by human observers |
| Participant-observation | • [*Same as above for direct observation*]<br>• Insightful into interpersonal behavior and motives | • [*Same as above for direct observation*]<br>• Bias due to participant-observer's manipulation of events |

| SOURCE OF EVIDENCE | Strengths | Weaknesses |
|---|---|---|
| Physical artifacts | • Insightful into cultural features<br>• Insightful into technical operations | • Selectivity<br>• Availability |

In Table 3.3 participant observation is not indicated in bold. The researcher perceived participant observation to be a data source referenced less explicitly in the case study publications in academic management journals, and therefore a data sources called upon less often in traditional case study methodology. For those case studies in which the researcher has indicated a more traditional case study approach, participant observation was not used as a method. The researcher used participant observation as a data source in those cases that were pursued through the action research and ethnography methodologies.

### *Action research*

Action research methodology offers another approach for collecting data about a case. Action research is a process of collaborative investigation that depends upon the direct participation of practitioners, who from other methodological perspectives may be designated as research subjects (Stringer, 2007). In an action research approach, researcher(s) and practitioners work together to tackle a particular problem to generate locally relevant solutions (Stringer, 2007). The reasons that the researcher chose to employ this methodology for some of the cases were twofold: 1) because the initial interviews suggested that it would be appropriate for the researcher and practitioners to collaborate in such a way and 2) because such an approach enabled the researcher to access an even richer set of data. Stringer describes action research as being built upon the following principles (Stringer, 2007):

- "It is *democratic*, enabling the participation of all people."
- "It is *equitable*, acknowledging people's equality of worth."
- "It is *liberating*, providing freedom from oppressive, debilitating conditions."
- "It is life *enhancing*, enabling the expression of people's full human potential."

Similar to case study methodology, action research involves data collection through interviews and observation, among other data sources. The researcher used the same unstructured interview approach described on page 75. Stringer offers the following list of the most common sources of action research data (Stringer, 2007):

- **Interviews**
- Focus groups
- **Participant observation**
- Questionnaires
- **Documents**
- **Records and reports**
- Surveys
- Research literature

Again, the researcher has emphasized the main sources of data for the action research cases that were studied in this research by using bold font.

### *Ethnography*

The researcher chose ethnography as a third approach to collect data about cases. More specifically, the researcher adopted autoethnography. Autoethnography is the process of studying and writing culture through the perspective of the self: "*self* (auto), *culture* (ethno) and *writing* (graphy)" (Adams, Holman, & Ellis, 2015). It is a research methodology that demands the researcher to look both inward (inside themselves) and outward (outside themselves) (Adams et al., 2015). Autoethnographer Sheryl Kleinman describes autoethnographic fieldwork:

> "Being a fieldworker in my everyday life means that I attend to the social patterns around me, analyze my own actions, and piece together the observations I make and the words I hear"
> (Adams et al., 2015)

Adams et al. describe autoethnographic fieldwork data as **observation**- and **experience**-based, which demands that the researcher use careful and deep self-reflection (i.e., reflexivity) to analyse what has been seen, heard and felt (Adams et al., 2015).

Autoethnography enabled the researcher to reflect on the experiences and observations that were gathered while pitching and developing healthy food venture ideas. This methodology enabled the researcher to obtain an understanding of the culture and pressures that might surround other HFVs.

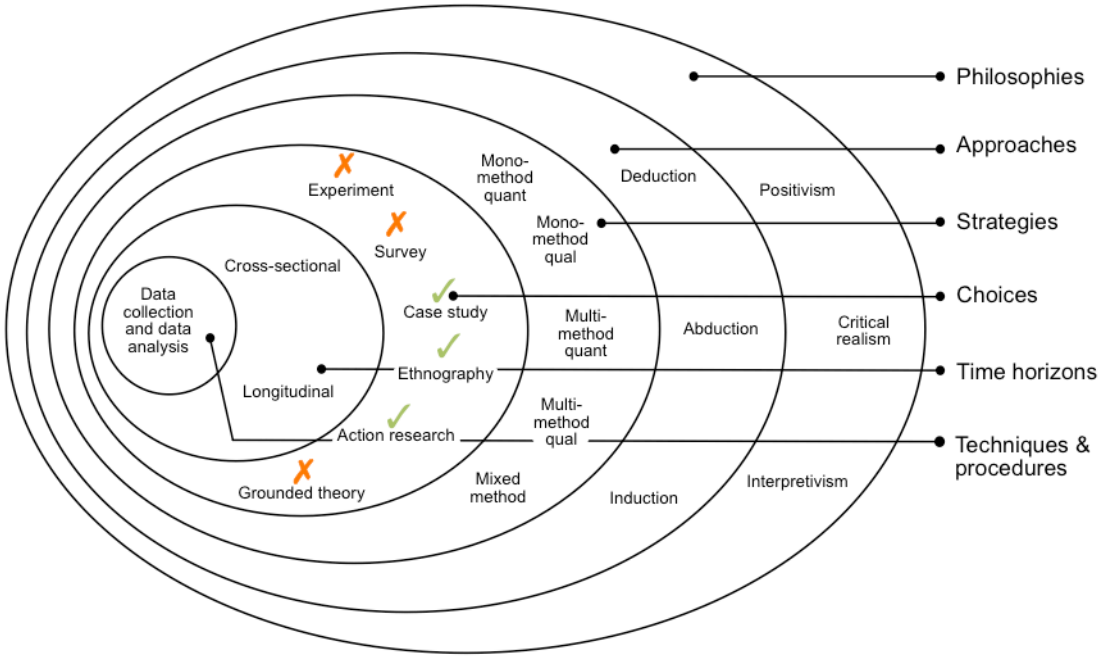



**Figure 3.6 Research methodology selection**

### 3.3.5 Time horizons

The time constraints of the present research limited the researcher's ability to collect longitudinal data. The researcher sought out data that informed the conception and evolution of the case study ventures—data that reflected the changes over time. However the researcher was not able to systematically collect data over the entirety of the growth of the ventures, which would be the expectation in a true longitudinal approach. Data about how some of the ventures started were obtained through practitioner recollections. When possible, the researcher cross-checked the practitioner recollections with archival records and documentation.

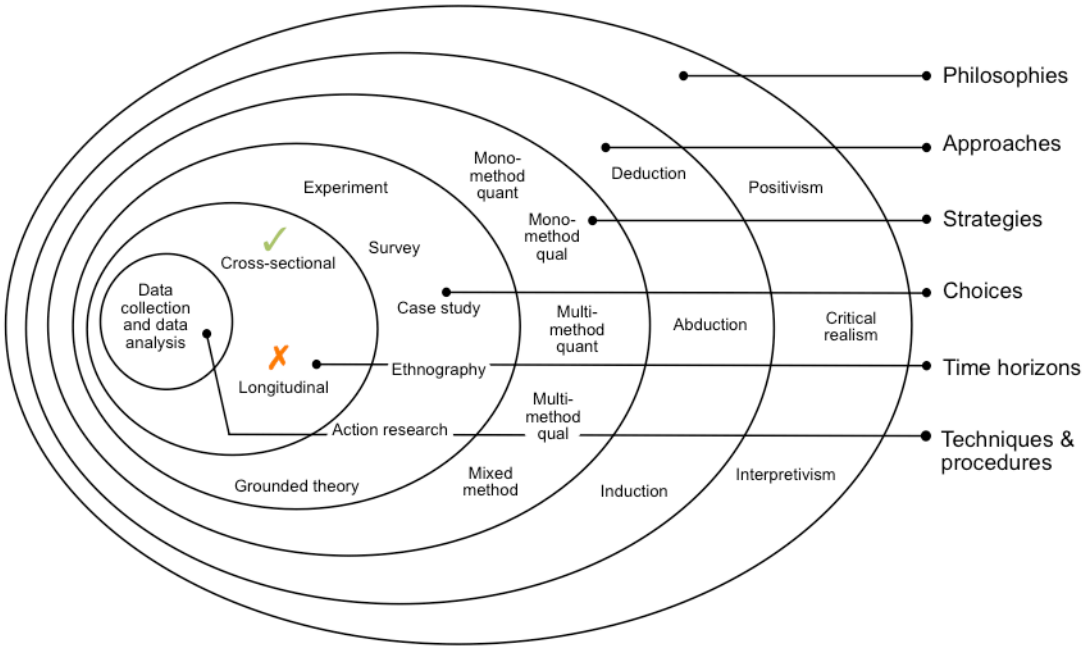



**Figure 3.7 Research time horizon selection**

### 3.3.6 Techniques and procedures

Many of the techniques and procedures that were used for data collection were listed alongside the research methodology. Section 3.3.4 mentioned that the multi-method qualitative approach enabled the researcher to study various cases of healthy food ventures. The subsequent paragraphs briefly introduce how the researcher sampled the cases, processed the data, and completed the analysis and synthesis. More detailed explanation of the adopted techniques and procedures is provided in the appropriate places throughout the thesis.

#### *Case sampling*

The researcher sampled for cases of HFVs, particularly ventures that wanted to make a health impact. The case sampling approach was influenced by multiple factors: information acquired through literature review of the research subject; understanding of qualitative research methodology; convenience of data collection opportunities. The researcher acknowledges that her subconscious interests were likely another influence. The researcher gravitated toward startups as opposed to large food companies. The younger and smaller ventures were more receptive to the researcher's research interests and objectives.

The researcher followed Miles et al.'s guidance on conceptually driven sequential sampling—a purposive sampling technique that evolves over the course of the fieldwork (Miles et al., 2013). This enabled the researcher to snowball into cases with similarities and differences, which revealed the important aspects that warranted further study (Miles et al., 2013). Following the sequential sampling approach, the researcher gradually narrowed the research focus, and built a portfolio of cases that enabled rich sampling within and across cases. Figure 3.8 and Table 3.5 share the diversity of the 20 cases, a portion of which are presented more fully in the insert that follows this chapter.

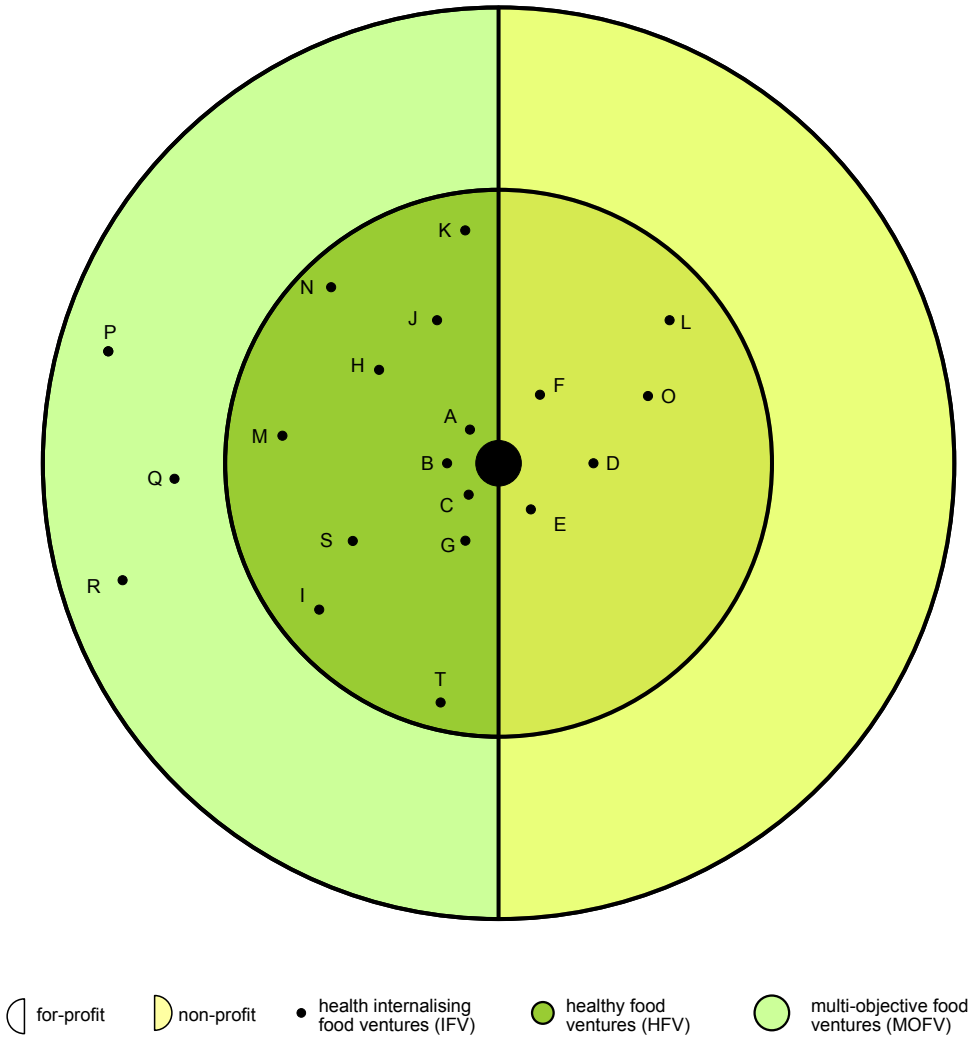



**Figure 3.8 Diversity of case study Ventures A-T**

Figure 3.8 introduces two types of ventures that have not yet been introduced: the health internalising food venture (IFV) and the multi-objective food venture (MOFV). The researcher's initial interest in healthy food ventures stemmed from a curiosity about how food ventures might internalise consumer health. The researcher defined an IFV as a venture that sold food to a customer and also took complete responsibility for the health of the customer. The researcher found examples of food-related ventures that had begun to approach this idea of the IFV, however the researcher was unable to find a venture that truly met the IFV definition. The researcher chose to focus on the healthy food venture (HFV) instead. The researcher also collected data from 3 MOFVs, which are defined as food-related ventures that balance multiple objectives to create social impact. The MOFV cases were studied because of the characteristics they shared with HFV, the HFV being a subset of the MOFV.

**Table 3.5 Summary of case studies (CS) and data collection approaches**

| CS | Description | Type | Interview(s)[1] | Observation | Contact(s)[2] |
|---|---|---|---|---|---|
| A | Venture A sells a healthy food app to employers and health plans (see page 96 for further detail) | Action research | In-person (w/ founders & employees) [9]; Phone (w/ founders & employees) [5] | 15-week internship | [26] practitioners over [75] days |
| B | Venture B provides an app with personalized recommendations for better eating (see page 98 for further detail) | Traditional case study | Phone (w/ founder) [1] | None | [1] practitioner over [2] days |
| C | Venture C is a consultancy that supports hospital food service transformations (see page 100 for further detail) | Traditional case study | In-person (w/ founder) [1] | 1-day worksite visit | [3] practitioners over [2] days |
| D | Venture D is a network organization that supports institutions to purchase local food (see page 102 for further detail) | Traditional case study | In-person (w/ director) [1] | None | [2] practitioners over [2] days |
| E | Venture E is a sustainable food initiative within a health centre (see page 104 for further detail) | Traditional case study | Phone (w/ director) [1] | None | [2] practitioners over [2] days |
| F | Venture F is a community organization that has a venture centre to support local food producers (see page 106 for further detail) | Traditional case study | Phone (w/ director) [1] | None | [1] practitioner over [1] day |
| G | Venture G was a pre-school healthy lunch delivery service that eventually shut down (see page 108 further detail) | Traditional case study | In-person (w/ founder) [1] | None | [1] practitioner over [1] day |
| H | Venture H is a platform empowering healthy meal planning (see page 109 for further detail) | Auto-ethnography | N/A | Startup competition | [24] practitioners over [10] days |

| CS | Description | Type | Interview(s)[1] | Observation | Contact(s)[2] |
|---|---|---|---|---|---|
| I | Venture I is a vertical farming startup (see page 109 for further detail) | Action research | In-person (w/ founder) [1] | 1-day workshop; prework meetings | [14] practitioners over [4] days |
| J | Venture J is a farm-tech startup that intends to create a new model for supporting community farms. The venture involves a membership scheme that gives members access to the farm's fresh produce. The most common way for individuals and families to gain membership to a Venture J farm is through their employer or the city council. The venture will pilot its first farm in the UK. | Action research | In-person (w/ founder) [1] | half-day stakeholders meeting | [7] practitioners over [10] days |
| K | Venture K is a local food hub with an objective to deliver healthy, sustainable fresh produce and food to residents across a British city. They aim to offer local food businesses an incubator kitchen to enable the growth of their businesses and they also aim to establish a subsidised veg box scheme to get fresh vegetables and fruit to lower income residents. | Action research | In-person (w/ founder) [1] | 1-day workshop; prework meetings | [16] practitioners over [6] days |
| L | Venture L is a community-building organization that brings together local food businesses, researchers and students to support / incubate local food businesses. Venture L aims to match the demand for local food within the university setting to the supply of local food businesses. | Auto-ethnography | N/A | 3 pilot activities | [7] practitioners over [10] days |

| CS | Description | Type | Interview(s)[1] | Observation | Contact(s)[2] |
|---|---|---|---|---|---|
| M | Venture M is a technology that connects farmers and restaurants to contract local food production and facilitate the ultimate delivery of that fresh produce from farm to restaurant. The venture has piloted in cities in both Canada and the US. | Traditional case study | Phone (w/ founder) [1] | None | [1] practitioner over [3] days |
| N | Venture N is an online platform and app that connects British farmers with surplus produce to home chefs with the time and passion to make healthy meals, which are ultimately delivered to consumers. The purpose of the platform is to reduce food waste on the farm, create flexible work opportunities for home chefs and provide a convenient and healthy meal option for the end consumer. | Auto-ethnography | N/A | Pitch event with food industry representatives | [18] practitioners over [3] days |
| O | Venture O is a healthy, sustainable food initiative within a US hospital campus. The initiative has brought about changes such as healthier, more sustainable menu offerings in the cafeterias and a CSA scheme that enables the hospital's employees to sponsor and partially subsidize fresh produce boxes for low income families who have difficulty accessing fresh produce. | Traditional case study | In-person group (w/ directors) [3]; phone (w/ director) | None | [4] practitioners over [2] days |

| CS | Description | Type | Interview(s)[1] | Observation | Contact(s)[2] |
|---|---|---|---|---|---|
| P | Venture P is a social enterprise that has built a personal development program around a membership-restricted discount grocery store for individuals who need help accessing food. The venture is a spinout of a company that aggregates surplus food from manufacturers / retailers across UK. | Traditional case study | In-person group and individual (w/ founders) [2] | 1-day worksite visit | [2] practitioners over [2] days |
| Q | Venture Q is a community-building organization that connects local food businesses, mentors, industry experts, investors and anyone else who might be interested in the local food ecosystem within their US city of focus. They have coworking space for small food businesses, and they hold networking events and workshops regularly. | Traditional case study | In-person (w/ founder) [1]; Video (w/ support staff) [1]; Phone (w/ support staff) [1] | 1-day worksite visit | [10] practitioners over [7] days |
| R | Venture R is a local food business that operates out of a small corner store in a major Canadian city. Venture R rents out its 24-person dining room and kitchen as a venue for chefs to hold one-off dinners (a.k.a. pop-ups). Venture R also offers rental space in a commercial kitchen space, and supports local food initiatives. | Traditional case study | Phone (w/ founder) [1] | None | [1] practitioner over [2] days |
| S | Venture S was a healthy food delivery service that eventually shut down. | Traditional case study | Video (w/ founder) [1] | None | [1] practitioner over [1] day |

| CS | Description | Type | Interview(s)[1] | Observation | Contact(s)[2] |
|---|---|---|---|---|---|
| T | Venture T is an online platform that leverages the power of community to harvest and move wonky produce off British farms. Similar to crowdfunding platforms, Venture T enables a project by capturing support from a population willing to commit to the project. The platform allows farmers to post produce, consumers to view and commit to that produce, and transporters to pick up jobs moving produce from farms to hubs, where consumers ultimately collect it. | Auto-ethnography | N/A | Team meetings | [4] practitioners over [5] days |
| **TOTALS** | | **20 cases** | **35** interviewees | **11 cases** involved observation opportunities beyond interviews | Data collected from **145** practitioners over **150 days** |

[1] The dates of interviews with each interviewee are presented in Appendix B.
[2] The 'contact' column accounts for the number of practitioners with whom the researcher interacted in an interview, a workshop setting, a worksite visit or another observation setting and the number of days during which those interactions occurred. A practitioner is defined as any person who actively supported the case study venture, and includes founders, entrepreneurs, employees and collaborators. The number of days does not signify consecutive days. They often were not consecutive, as this allowed the researcher to observe changes over time.

### *Data processing*

In this research, data processing refers to transcribing and memoing. These activities converted the raw data into an intelligible product. Miles et al. describe an intelligible product as something that is useful not just for the researcher, but for anyone (Miles et al., 2013). Some researchers make the decision to outsource the transcription of their interviews, however the researcher recognized that transcribing the interviews allowed the researcher to get extremely close to the interview data. The researcher did the transcription of the interview conversations and recorded meetings by herself. In practice, this meant that the researcher revisited the interview recordings multiple times.

### *Analysis and synthesis*

Given that this research was not hypothesis driven and instead a more exploratory investigation, the researcher first experimented with several open coding and data display techniques, such as matrix and network displays (Miles et al., 2013). The researcher uploaded interview transcripts into NVivo to assist with the open coding process. Like the data processing approach that the researcher adopted, this data analysis approach enabled the researcher to thoroughly study the data. The codes and data displays uncovered themes that ultimately influenced the researcher's approach to develop the analytical lens used in Chapter 4. Further detail about the analysis and synthesis techniques that the researcher used is integrated into Chapters 4, 5 and 6.

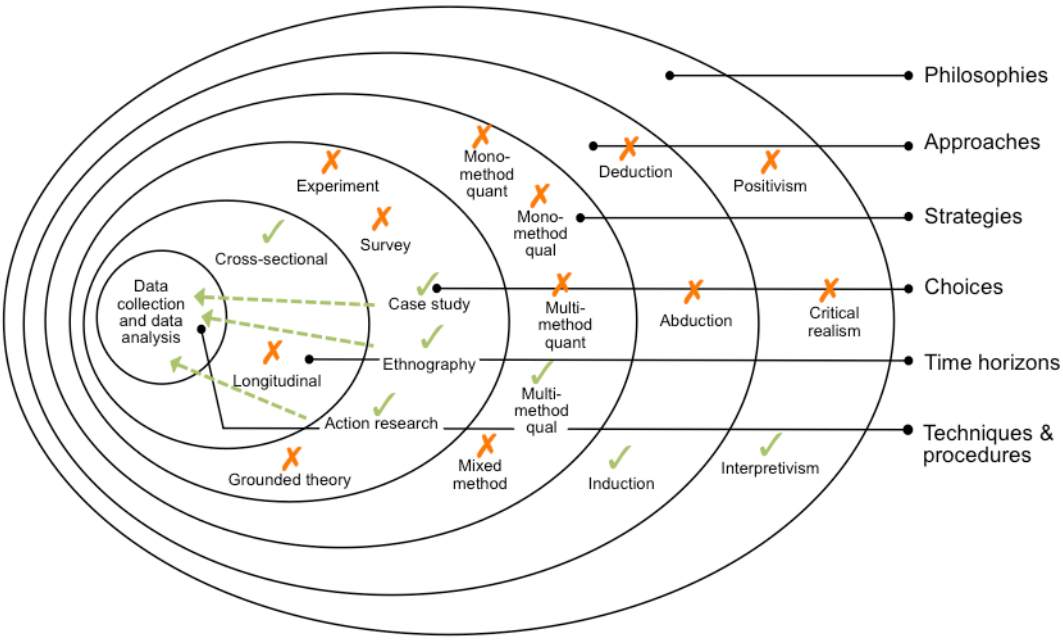



**Figure 3.9 Summary of research design selections**

## 3.4 Research design execution

This section describes how the research design was executed in practice. The researcher first established that the planned research design was a feasible approach. The research has followed the plan that is presented in Section 3.4.2.

### 3.4.1 Preconditions to research

The research plan was dependent on two preconditions. It was dependent upon 1) access to the observable phenomenon and 2) existence of instrument(s) to collect, process and analyse observations. In this research, access to the phenomenon required the healthy food ventures to grant the researcher the ability to conduct interviews and field observations. The researcher conducted pilot interviews with one of the case study ventures in May 2015. The venture's willingness to share data through interviews and a worksite visit suggested that the researcher would be able to access similar levels of data with other ventures.

The researcher established the ability to collect data that informed the research questions through those initial interviews and observations. The second precondition closely followed. As soon as the access to the data was established, the researcher knew that she would feature as the primary instrument for data collection. Given the nature of the research questions and the anticipated outcomes, the researcher understood she

would also serve as the primary instrument behind the data processing, analysis and synthesis.

### 3.4.2 Research plan

The research plan was built upon the iteration through a loop of data collection, data processing, data analysis and continued literature review. As described previously, data was collected from a sample of 20 case study ventures, processed through digital transcription and memoing and analysed through open coding. The researcher planned to exit the loop at the saturation of pattern recognition. The saturation point occurred when specific patterns were consistently observed across the sample of cases. These patterns led the researcher to synthesize the analytical tools that led to further analysis and synthesis.

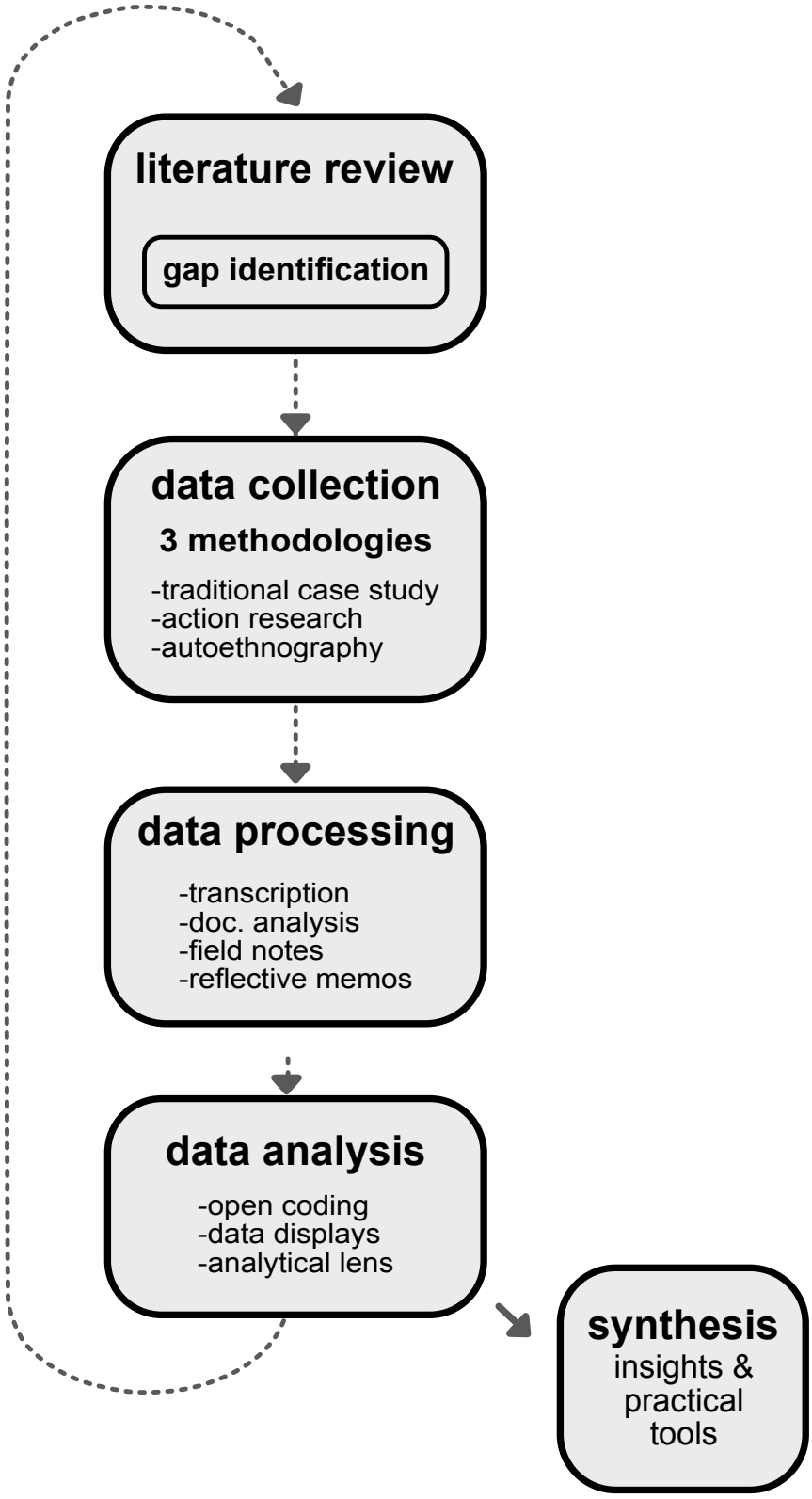



**Figure 3.10 Research plan**

### 3.5 Strengths and weaknesses

The main strength of the research design was its ability to provide the researcher with rich descriptive data that informed the open-ended research questions. Another strength of the research design was all of the learning that came with the collection and analysis of the qualitative data. The selected methodologies demanded that the researcher learn to be hyper-aware of potential biases and influences, and also critical of how and in what situations truths emerge. It was important for the researcher to observe appropriate research ethics. Case study methodology, action research and autoethnography have stimulated a great deal of discussion about the topic. The wealth of writing on the topic allowed the researcher to develop a strong foundation in research ethics.

The selected methodologies, in particular action research, instilled the researcher with an appreciation and respect for practitioner knowledge. The literature on qualitative research methodology emphasizes the importance of establishing relationships of trust within research settings, and particularly with those who participate in interviews and observation environments, to truly unlock the knowledge of people within the research setting. The shared interest in understanding how to better encourage healthy food consumption between the healthy food ventures and the researcher was a strong starting point for establishing the trusting relationship. Understanding and building upon practitioner knowledge is another strength of this research.

The research had its weaknesses as well. While the data was rich and descriptive, it was also messy and plentiful. The researcher recognizes that given the interpretive element of both the data and the analysis, two researchers were not guaranteed to come to the same conclusions. The exploratory nature of this research enabled the researcher to collect an abundance of data, which could have been analysed in a number of ways. The work presented in this thesis represents just a snapshot of what the data has to offer. The analysis and synthesis involved in all exploratory qualitative research come with uncertainty, and the research progress in the present research sometimes slowed beyond the researcher's expectations.

The researcher considered the uncertainties around timing and outcomes to be another weakness of the research design. For example, the researcher might have quantified some of the findings using a survey. The researcher also might have tested some of the emergent insights and tools in a slightly different context (e.g., test the

emergent framework in a real workshop setting or within a different industry). However, given the three-year time constraints and the uncertainties involved in the qualitative research process, the researcher was only able to generate findings within the specific context of healthy food ventures.

The chosen research design clearly has had both its strengths and weaknesses. The research produced an abundance of rich and meaningful data. While the researcher analysed only a portion of what the data had to offer, the quantity of the collected data was a strength. The researcher was able to collect data from 20 different cases. Miles et al. commend the collection of data across multiple cases, pointing to the confidence such data collection can add to findings: "[Multiple-case sampling allows us to] strengthen the precision, validity, stability and trustworthiness of the findings" (Miles et al., 2013). The Case study insert that follows will present the cases of Ventures A-I in greater detail.

# Insert

**The case studies**

This collection of case study summaries is a reference that has been designed so the reader can easily access it at any point. As described in Chapter 3, there were three methodological streams used to collect the case study data. The researcher refers to these three streams as traditional case study, action research and autoethnography (as seen in Table 3.5).

This insert describes 6 of the cases in detail and presents another 3 of the cases in a more concise format. The remaining 11 cases were described in Table 3.5. The researcher refers to the cases using Venture [X] in order to maintain anonymity. Citations that could be traced back to the healthy food ventures (e.g., websites, reports, case study publications) have also been withheld for this reason. The reader should assume that such referenced online content was accessed concurrent with the data collection and analysis of the case studies.

Each case adds to our understanding of the *healthy food venture*. The cases offer variety—the reader will find examples of for profit and non profit (as was illustrated in Figure 3.8) ventures, as well as successful and failed ventures. The researcher focused on young ventures in order to understand the processes that occur in the early years of development. The diversity of the cases was illustrated in Figure 3.8 on page 83.

**Venture A**

**Overview**

Venture A is a startup that manages and sells a programme to encourage healthy food consumption. They are based in the US and they are for profit, business-to-business (B2B). The objective of the Venture A programme is to help their clients to foster health amongst their clients' health insuree population, the assumption being that healthier insurees translate to health care savings for those clients. Venture A's clients include health / wellness plans and large employers (especially those employers that are self-insured—i.e., the employer assumes the risk for providing health insurance to employees). As of 2016, Venture A's main programme encouraged users' healthy food consumption by tracking food purchases, informing the nutritional content of purchases and offering incentives and information to help improve the nutritional content of their purchases.

**Programme details**

The programme is administered through an online platform that enables each user to maintain an individual account accessible via web browser and app. As of 2016, there were two main strategies used to incentivize healthy food purchases—offers and cash back rebates. Individuals are eligible to use to the Venture A programme if their employer or health / wellness plan (a.k.a., payer) purchases it for them. The offers and cash back rebates are available in food retailers within the Venture A network, which has grown to nearly one hundred companies responsible for tens of thousands of stores across the US. The Venture A stakeholder network also includes manufacturers, growers and data aggregators, who collectively enable platform users to obtain information about food products, track purchases and redeem rewards.

The Venture A technology identifies and scores food products that the user finds in their network's retailers, and consequently informs the user about the healthiness of various food products. The items are scored from 0-100 using an algorithm based on micro- (e.g., iron) and macro- (e.g., carbohydrates) nutrient content. A score of 100 is given to the healthiest products. Venture A has built the algorithm based on scientific research, and their primary source of information is the USDA.

The platform also gives the user the opportunity to track their food purchases and see the progress they are making to shift towards healthier foods. Tracking is enabled through the use of loyalty cards. The user's payer might give them a cash back rebate incentive to shop healthier. For example, a user might get a 10% rebate on food items that score 80 or higher. The Venture A tracking system enables the food purchases to be tracked objectively. The programme then takes that purchase data and distributes the cash back rebates, which are funded by the user's payer. The other type of incentive—the offer—is essentially a coupon that gives users an attractive deal on a healthy food product.

**Mission and vision**

While the Venture A website does not signpost its mission, the messaging across the website conveys the mission echoed by Venture A executives and employees during interviews—to improve their user's health. Throughout interviews, executives expressed the vision to create the leading online platform for health and wellness solutions.

**Emergence and evolution**

The idea for Venture A emerged during an innovation competition within its parent company (a.k.a. Parent A). Parent A is a multinational corporation headquartered in Europe, yet has offices all around the world (including an office in the US). Parent A sells pre-paid services to employers to facilitate the administration of various benefits, and each year the company holds an innovation competition to encourage their employees to put forward business ideas that align with Parent A's skills and principles. Their website describes the principles that underpin their work—principles related to entrepreneurship, collaboration and innovation.

The pitch for Venture A impressed Parent A's leadership enough to seed fund the venture. Parent A ultimately partnered in a joint venture with a company (a.k.a. JV Partner A), which already had a system in place to track purchases through loyalty cards, to bring Venture A to fruition. As of 2016, Parent A and JV Partner A were shareholders of Venture A. A number of Venture A employees still have roles on Parent A projects.

**Scale and scope**

In April 2016, the number of eligible users was upwards of one million, however only a portion of the users were registered and using the program. The user population was concentrated in one geographical region of the US, but Venture A was in the process of expanding their client base to other geographical regions.

**What makes Venture A interesting?**

Venture A found a way to scale up the HealthyFoods programme that was introduced in the literature review chapter. While the HealthyFoods programme described by Sturm et al. was available only to South Africa's Vitality members, the Venture A programme can theoretically be made available to any person with access to a loyalty card connected retailer and a willing payer. Sturm et al. described a programme in which rebates were only redeemable in two partnering retailers in South Africa. Venture A has partnered with tens of thousands of stores in the US, and their approach can theoretically be implemented in many other countries around the world.

**Venture B**

**Overview**

Venture B is a technology startup that empowers consumers to make more informed decisions about their food. Their technology enables consumers to access nutritional information about food products. One application of this technology is in a smartphone app that consumers can use while they do their grocery shopping. App users can scan in, search and track purchases of food products in order to get recommendations of food products that would be better for them. Recommendations are customized based on the personal data provided by the user.

**App details**

The app enables users to create their own individual account, where they are able to personalise their profile. Users can enter personal data such as gender, ethnicity, height, weight, fitness goals, food allergies and health conditions. Access to the user's personal data allows the app to make customized food product recommendations for the individual. The app technology draws on the nutrition expertise of a team of Registered Dieticians in order to make its recommendations. Users can also operate the app without entering personal data. For a user who chooses to withhold personal data, the app will make recommendations based on the dietary advice for the general population.

Users can engage with the app in a number of ways. The consumer can scan or search a food product that they find in a grocery store and receive a recommendation to swap to an alternative. The alternative food product is framed as an upgrade—a product that is better for the shopper from a health perspective. Another way that the user engages with the app is by completing tasks. For example, the app might offer the opportunity to pay the user for completing a task like this:

> "Head over to the produce section, snap a photograph of the broccoli display and earn $2.00 on your Venture B account when you complete this task."

The user can choose to carry out the task to earn $2.00 on their Venture B account. These tasks effectively crowdsource data from the users. It is this type of activity that generates some of the funding for the app. Data on how the broccoli is merchandized is highly valuable to the broccoli grower.

**Mission and vision**

Venture B does not have their mission statement labelled, but they do have a banner across their webpage that communicates their goal to give people the tools to choose better foods to eat. Venture B envisions a world in which a

growing number of shoppers will use the information accessible through their smartphones to make decisions about their food. Their website echoes this sentiment with a message about how people would like to eat healthier, but there are so many confusing and contradictory claims about nutrition; it is difficult for people to find the time to properly research and decide which claims to believe.

**Emergence and evolution**

Venture B was founded by a team with a track record of experience in applying technology to solve problems within the food industry. One of the driving factors behind Venture B was the desire to reverse the decrease in fresh produce consumption that the US has seen over the last 40 years. Venture B was founded in the US in 2005. It has since received the support of prominent food and technology investors. Since the case study data collection, Venture B has been acquired by another food tech company. A recent announcement about the acquisition emphasised the following:

- Venture B will continue to offer its services to its users as normal (e.g., via the Venture B app).
- The Venture B technology will soon be integrated into the other food tech company's platform.
- The integration of the Venture B technology into the other food tech company's platform will enable services that span the entire lifecycle of food preparation, from the meal planning and shopping in the grocery store to the food production in the kitchen with the use of smart kitchen equipment.

**Scale and scope**

In 2015, Venture B reported an app user base of over a million users across the US. However, their founder noted that the addressable market was huge—the founder explained that roughly 100 million Americans were obese, 30 million were diagnosed diabetics and 50 million had food allergies.

**What makes Venture B interesting?**

Venture B found a way to offer the app free of charge and directly to the user without involving health / wellness plans and employers. The broccoli task described above is an example of how Venture B leveraged their technology and knowledge to collect and sell valuable data. Venture B's founder knew that the merchandising of fresh produce was a headache for produce growers. The broccoli grower from the example above paid Venture B $2.00 per data point collected and an additional fee for the service that Venture B provides to collect and package the data.

**Venture C**

**Overview**

Venture C is a startup consultancy that offers guidance and technical assistance to organisations with a desire to transform their food service operations to foster the health and wellbeing of the people they serve. Venture C markets to health care, educational and community-based organisations. This case study will draw on the experience the Venture C team has built transforming food service in the hospital setting. In many of their hospital projects, the Venture C team embeds themselves within the client hospital.

**Hospital food service transformation details**

One type of project that Venture C undertakes is the complete redesign of the food service operations within a hospital. Their website explains the services Venture C offers to the health care sector, and emphasises the following key points:

- Venture C believes that nutritious food has a role in health care.
- The health care provider's kitchen is the central point in the Venture C model, around which it is possible to organise and customise many initiatives for patients, visitors and the local community.
- By enhancing the nutritional quality of food in the health care sector, health care providers are better able to see food as a component of clinical care, an important part of the patient experience and an enabler of health sector employee wellbeing.
- The Venture C approach draws on the experience of Venture C's team of chefs, health educators, farmers and nutrition experts
- The Venture C team works with the staff of the client health care organisation to build a culture around nutrient-dense and delicious food being a key part of disease prevention and healing.
- As the health care sector strives to achieve the "Triple Aim" (i.e., improved patient experience, improved population health, reduced per capita cost of care), the time is right for an approach like Venture C's.

The "Triple Aim" is a framework that was introduced in 2007 by the Institute for Healthcare Improvement in response to the US health care system being the most costly health care system in the world. The Triple Aim is part of the motivation for Venture C, but what exactly does Venture C's contribution to a hospital transformation involve? Venture C's day-to-day work involves activities such as redefining purchasing criteria and preparation methods, strengthening and forging relationships, innovating and implementing new initiatives and identifying and leveraging underutilized assets within their client hospital's reach. All of the work contributes to the grand objective to elevate the role of food and food service within the hospital as a means of achieving the Triple Aim.

**Mission and vision**

Venture C has a mission to help their client organisations promote the wellness, satisfaction and productivity of the people their client organisations work to serve and employ. In the case of a mental health centre, Venture C helped them to further achieve their mission of providing their patients with holistic mental health care, food being a component of that care.

**Emergence and evolution**

Venture C was founded by a former hospital executive in 2011 in the US. As a hospital executive, Venture C's founder had led a powerful transformation of the hospital's food services. When that hospital merged with another health care organisation, Venture C's founder decided to leave and do the same type of food service transformation work at other organisations. The learning obtained at the original hospital could be applied in a lot of other organisations.

The Venture C team has a range of expertise, and of particular importance is their legal expertise. In the context of the newly introduced Affordable Care Act, the Venture C team has been able to identify opportunities for their non profit hospital clients to meet the requirements of the "Community Health Needs Assessment" (CHNA) regulatory framework, and consequently obtain their "Community Benefit" tax exemptions.

**Scale and scope**

Venture C has worked with a range of different health care organisations since it started in 2011. One of their early projects transformed the food system within a hospital of 500 employees and 30 inpatients, with over 5,000 outpatients visiting annually. A more recent project was with a hospital with over one hundred beds and close to 500 physicians that sees nearly 40,000 outpatients per year. Given the large number of people that interact with hospitals, the Venture C approach has the potential to touch many lives. Venture C is building a portfolio of success stories that can ultimately persuade other hospitals to completely revamp their food systems.

**What makes Venture C interesting?**

Venture C's founder recognized the opportunity to replicate the food service transformation at hospitals across the country. As the Venture C team serves hospitals, they build a portfolio of lessons-learned that they can draw on for future projects. Venture C has made many of these lessons-learned publically available.

Another interesting aspect of Venture C is their creativity in leveraging legal requirements. Venture C recognized the opportunity to build a value proposition around the CHNA regulatory framework; they offered their expertise to help hospitals implement food programs that aligned with the CHNA and consequently obtain their tax exemptions.

**Venture D**

**Overview**

Venture D is a network organisation that connects institutional customers to suppliers of regionally grown food who can sell at institutional scales. Their website describes how:

- Venture D brings together public, private and non profit organisations within a geographical region in the US that share a desire to change the food system to enable better and more local food to be served in institutions, and formalises that network.
- Venture D works with institutions such as schools, colleges and hospitals.
- Network members include farmers, food distributors, food processors, food service companies, government agencies, non profit organisations and others in addition to the institutions they serve.

**Network details**

Acting as a network organisation, Venture D's work can largely be grouped into three streams: 1) leading the network, 2) catalysing projects that advance their mission, and 3) driving forward policy and strategy. As the mediating body that sits amongst institutions and supply chain actors, Venture D has developed a holistic view of the regional food system, from farm to table. Being in such a position enables them to see the opportunities and challenges for strengthening the system. Venture D grew out of the assumption that when institutions commit to large purchase orders, they serve as a powerful lever to support local farmers. The institutional commitment to local produce is believed to positively impact farmers by securing customers for their supply. Another argument for getting local food into institutions is to get quality food to the people who eat there, often on a daily basis.

Before Venture D, collaborations amongst the types of organisations that now are members of the Venture D network were developed organically. Instances of collaboration occurred in silos. Venture D has forged a network amongst these like-minded organisations, and has given them the opportunity to accelerate their learning about how to make the partnership between institutions and the supply chain of regionally grown food even more powerful and viable. Before organisations like Venture D entered the landscape, the knowledge about the partnerships between institutions and regionally grown food supply chains was not easily accessible. This knowledge is now shared through case studies and information that is publically available online. Venture D has become a trusted point of information for any question about getting regionally grown food into institutions.

**Mission and vision**

Venture D clearly articulates their mission and vision statements on their website. They state a mission to leverage the power of institutions to catalyse food system transformation. Their vision is to have their regional institutions serving as leaders in empowering the region to adopt a more self-reliant food system—one that prioritises equity, justice and healthy food access for all its inhabitants and one that sustains productive land and maritime ecosystems.

**Emergence and evolution**

Venture D grew out of conversations that included the leaders of the farm-to-school movement, politicians and agricultural advocates within the region's states. The agricultural advocates were particularly interested in finding a way to keep farmland in farming. The leaders of the farm-to-school movement made the case that if institutions committed to purchasing even just a small portion of their food from local farmers it could generate millions for the state (e.g., public schools would need to spend only 5% of their food budget on local foods to generate millions). In 2010, Venture D obtained federal funding to get the venture off the ground.

Venture D was launched as a joint initiative between the regional farm-to-school committee and agricultural advocates. Since their launch, Venture D has spun out into a distinct venture from the regional farm-to-school committee, however the two organisations have maintained a strong working relationship. As of 2015, Venture D operated with 4 part-time staff members and an 8-member leadership team.

**Scale and scope**

Venture D's coverage extends across several states in the region that it serves. A case study on Venture D explained the difficulty in estimating the number of Venture D members. As of 2015, over 600 people were signed up to Venture D's mailing list. Only a portion of that membership base engages regularly, however members who do engage represent national, regional, and state level partner organisations that can influence change at institutional scales.

**What makes Venture D interesting?**

Venture D offers an alternative approach to scale up transformation across institutional food services. In the previous case study summary, we saw that Venture C scaled the impact of the original hospital food service transformation by starting a consultancy that allowed them to transform the food services across a number of hospitals and organisations. Venture D demonstrates how a network approach can also effectively scale the best practices and lessons-learned about institutional food service transformation.

**Venture E**

**Overview**

Venture E is a sustainable food programme that started at the nutrition department in a publically funded academic health care centre in the US. The programme has supported a range of initiatives that have resulted in the health care centre sourcing more sustainable foods and supporting young food businesses within the region.

**Initiatives**

Venture E's initiatives have included:

- Organising and hosting a regular farmer's market
- Showcasing sustainably sourced foods on dedicated food days
- Managing a Community Supported Agriculture (CSA) distribution scheme

**Mission and vision**

Venture E sits within an organisation that has a clearly signposted mission on their website. There they describe a mission to provide excellence in patient care, education, research and community service as they serve their patients, staff, visitors and students, noting the quality, individualisation and compassion that factors into that service.

One website section outlines their thoughts about sustainability and local foods:

- They define sustainability as the ability to support the needs of the current population without compromising the ability of future generations to meet their needs.
- Sustainability involves renewable resources.
- Sustainable processes enable the environment and economy to thrive.
- Sustainable products eliminate excess waste, and are often local as the lower distribution costs of local products eliminate excess waste.
- Local foods have several benefits including increased nutrient content and cost savings on processing, which are enabled by the ability to pick local foods at their optimal ripeness.
- As a health care institution, we are in a position to shift the food system to be more sustainable by investing in food production approaches that preserve the health of both humans and the environment.
- More sustainable food system practices include:
    - Growing food without synthetic pesticides and herbicides
    - Producing meat and poultry without sub-therapeutic antibiotics or hormones

**Emergence and evolution**

The health care centre's efforts around sustainable food sourcing grew with support from an NGO on a mission to ensure that health care is in fact contributing to the health of people and the planet. In the early 2000's, this particular NGO convened meetings of health care centres that were interested in discussing sustainable sourcing. The health care centre that hosts the Venture E initiative was in attendance. The emergence and growth of Venture E—the sustainable food programme—has been made possible by leaders in the health care centre, as well as the Venture E staff who are passionate about integrating sustainability into their everyday work.

**Scale and scope**

Venture E sits within a health care centre that employs over 15,000 and sees nearly one million patients each year. Some 2014 statistics suggest the impact that they have made through their food initiative:

- Over 20% of the health care centre's produce was local or certified organic,
- Nearly 20% of the health care centre's poultry was raised without the use of sub-therapeutic antibiotics, and
- Over half of the health care centre's beef was grass fed without the use of sub-therapeutic antibiotics and hormones.

As of 2016, over half of their beef was sourced locally from an antibiotic and hormone free ranch.

**What makes Venture E interesting?**

When the researcher interviewed with Venture E, the director effectively described Venture E as an incubator for young, sustainable food producers:

> *"We started a farmers market here at the hospital and started developing relationships with some of those farmers, and those farmers have changed over the years, but the farmers market is sort of an incubator for new farmers, particularly this size farmers market, because its small enough that there is not a huge expectation of what they'll bring, but its big enough to maintain a few different farmers. So I try to get in new farmers in every year who are launching their businesses, and we incubate them, or they incubate themselves for about 2-3 years and then they launch off into something else, which is kind of perfect. Usually they grow in that time."*—Director E1

**Venture F**

**Overview**

Venture F is a non profit organisation that supports local entrepreneurs and farmers who work with food. Venture F is located in a state in the US. The organisation works to enhance the state's local food economy in a variety of ways. Venture F's work includes educational outreach in schools, research projects into the economic impact of the local food economy and more recently, formalized incubation for local food businesses. In 2011, Venture F launched their venture centre, which serves as a food hub and incubator with 3 shared-use kitchens and storage space.

**Details about venture centre**

In 2009, Venture F received federal funding to set up and operate their venture centre, which rents kitchen and storage space to food growers and entrepreneurs. The venture centre was opened in 2011. Being federally funded, the venture centre offers an inclusive incubation environment. As an organisation, Venture F is expected to maintain rather neutral views (e.g., agnostic about how entrepreneurs decide to source ingredients). That being said, the venture centre sits within Venture F, which relies upon staff and resources aligned with the Venture F mission.

**Mission and vision**

Front and centre on their website's landing page, you can find the Venture F mission.

> The mission calls to facilitate a food system that is:
> - local,
> - regenerative, and
> - healthy;
>
> providing educational outreach, collaboration opportunities, infrastructure, food access and hunger relief

On their website's mission and vision page appears a quote from their state's Secretary of Agriculture. The quote includes the following language, which was used to describe the desired food system:

- diverse
- community based
- relies upon knowing each other
- relies upon sharing stories and practices

**Emergence and evolution**

A group of entrepreneurs with a shared mission came together to found Venture F in 2008. They formed the organisation because they wanted to spread the word about the power of a locally based food system, yet they were too busy with their individual ventures to communicate that message on their own. At the start, Venture F was a volunteer run organisation whose purpose was to propagate the powerful impact that locally based food systems could have for their home state. The organisation operated with 1 professional staff member and a 9-person board of directors in 2009. Besides the single staff member, the people who worked with Venture F in the first 5 years were funded from external sources (e.g., AmeriCorp research grants, graduate research fellowships). By 2015, Venture F had grown to 16 staff members and a 10-person board of directors.

**Scale and scope**

Venture F primarily focuses its efforts on their home state's local community, but their influence extends into other states within the geographical region. As with many of the cases studied in this research, it is difficult to communicate the scale of venture's impact. A recent annual report (published in 2016) highlights their work:

- advising 12 new business projects,
- consulting with 35 food businesses,
- training over 20 attendees in business finance workshops

Yet this is merely a snapshot.

**What makes Venture F interesting?**

Venture F is an example of an open innovation ecosystem for healthy and local food system innovation. The founders of Venture F have instilled their ethos into the organisation and the case study data suggests that the ethos has permeated into the ventures they incubate and the surrounding community. Chesbrough et al. studied a California restaurant called Chez Panisse through the lens of open innovation (Chesbrough et al., 2014). The Chez Panisse restaurant was founded by Alice Waters in the early seventies. Their website echoes their mantra:

> "Alice and Chez Panisse are convinced that the best tasting food is organically and locally grown, and harvested in ways that are ecologically sound by people who are taking care of the land for future generations." (Chez Panisse, 2018)

Chesbrough et al. described Chez Panisse as the locus of an open innovation ecosystem (Chesbrough et al., 2014). Its role as the centre point of the open innovation ecosystem arose organically. The researcher observed that Venture F also served as the centre point of an open innovation ecosystem, however it was more deliberate in facilitating the open innovation ecosystem.

**Venture G**

Venture G is a startup venture that shut down after approximately three years of operation in a major city in the US. Venture G was a healthy lunch delivery service for pre-schoolers. The purpose of the venture was to teach young children to eat well. Following its closure the founder sent an email out to friends, which the founder later forwarded to the researcher. The founder offered some thoughts on why the venture did not survive:

- *We did not discontinue unprofitable business lines*
- *We were spread too thin*
- *We did not "Do one thing and do it well"*
- *We did too many things at once*
- *We did not take time to reflect*

*We tried out both kids markets and adults markets, and:*

***[Kids market]***

- *We chose a marginal niche in a fragmented market in hopes of avoiding competition*
- *We did not re-evaluate our pricing strategy when we switched from primarily B2C to B2B;*
- *We underestimated the complexity of the channel and the psychology of parents and teachers;*
- *We did not test the B2B schools market early enough*

***[Adult market]***

- *Is a B2B channel the right place for nutritious food? I see successful B2C food companies aligned with our values EVERYWHERE...They are serving customers who have chosen a place that serves nutritious fresh food, not employees whose lunch choice has been made by someone else.*

The founder also shared a list of lessons-learned, which included:

- *Make time and space for strategy. There will always be fires to deal with, but ignoring strategy is fatal*
- *Don't think you have to prototype everything—Asking the right people the right questions can give you insight that saves months of experimentation*
- *Experiments are NOT pivots: experiments should have a beginning, middle, and end—set metrics before starting and adhere to them*
- *Beware of confirmation bias, listen to detractors not just to improve the product but to assess the market*
- *Never stop thinking about your sales channel—are you in the best possible channel for your product? Is it a highly fragmented market? How does that affect sales strategy?*
- *Love your product and your customers—they'll know it.*

**Venture H**

Venture H is an online platform and app that empowers its users to plan out their takeaway meals weeks in advance to allow premeditated meal selection, easy ordering and collection. Its purpose is to encourage healthier meal selections on the consumer end and food waste prevention on the takeaway end. The researcher spent several months developing this startup idea in the lead up to an international food startup competition, which emphasised food system transformation. The researcher worked closely with two mentors throughout the process (one of whom was assigned through the startup competition). In 2016, the researcher pitched Venture H to food industry experts and investors at the competition showcase. This excerpt comes from a memo in which the researcher reflected on the experience:

*"The [startup competition] director emphasized the 'care and thought' that went into pairing mentors with the finalists on Showcase Day... Admittedly, I was a bit surprised when I learned that my mentor was a restaurateur. Among the pool of mentors on the website, I noticed several technologists and assumed that with a food-tech app idea, I would be paired with someone with technology expertise. Working with my mentor up until the [showcase], I got a better sense of why we had been paired. [The startup competition] was giving me the ability to test my idea by putting it in front of one of my potential clients. I had initially pitched the value proposition for restaurants as: enabling them to tailor to personalized health needs, prevent food waste and gain a direct line of communication with the customer; but were all of those problems that restaurants were in fact interested in solving? The conversations with my mentor really started to challenge my assumptions about the value that my startup could provide for restaurants."*

Venture H has since shut down due to time capacity constraints of the team.

**Venture I**

Venture I is a vertical farming startup idea that is still in development. In spring 2017, the researcher worked with the founder to organise a Value Mapping workshop, which took place in May 2017. The workshop brought together potential stakeholders of Venture I, which included representation from experienced vertical farmers, equipment suppliers, local university researchers, local food and drink businesses and local leaders. Following the workshop, the founder proposed the following purpose statement for the venture:

> "To develop and promote the large scale, commercial use of hydroponics to grow plants within urban environments, engaging with the local community to build skills, to create jobs and to develop healthier, more locally based food systems"

While the vertical farm has not yet been implemented, Venture I continues to pursue the startup idea.

# Chapter 4

**4. Analysing the business model components**

This chapter presents the specific healthy food venture challenges that emerged from the 6 in-depth case studies when the researcher used the business model construct as an analytical lens. Section 4.1 will explain how the analytical lens was developed. The four frameworks that were introduced in the literature chapter were combined to generate the lens, which is effectively a list of BM components. This list of components was used as the basis of the case study analysis. Section 4.2 will provide a thorough account of how the lens was used to analyse Venture A. Section 4.3 will demonstrate the results of the same analyses undertaken for Ventures B-F. Further into the chapter, Section 4.4 discusses the HFV challenges that have emerged. Section 4.5 segues to Chapter 5, with reflection on the effectiveness of various aspects of the analysis process.

## 4.1 Developing the analytical lens of BM components

The list of business model components emerged from a review of business model frameworks. This section details the method by which the list was developed and how it then served as the foundation of the analysis.

### 4.1.1 The goals of analysing the BM components

As explained in thesis introduction, one reason the researcher selected the business model construct as an analytical lens was because it was anticipated to enable a holistic and systematic review of the cases. By reviewing the cases holistically and systematically, the researcher expected to draw out the full range of challenges encountered by the HFVs as they pursued their goals. A 'healthy food venture challenge' (HFV challenge) is a difficulty or failure that is directly related to food or health. The HFV challenge also encompasses issues related to individual rights, as individual rights are closely intertwined with food and health.

The researcher captured this reasoning in a set of goals, and designed the analysis procedure to meet those goals. The list of BM components served as the analytical lens and thus the foundation of the analysis. In summary, the procedure was intended to encourage:

- Systematic analysis of the ventures;
- Holistic analysis of the ventures;
- Identification of HFV challenges

Additionally, the researcher expected the analysis procedure to offer helpful insights for healthy food venture practitioners. Such insights would contribute to the research purpose—to help HFVs create both social and economic value outcomes.

### 4.1.2 The list of business model components

As introduced in Chapter 2, there are a number of BM frameworks that have gained traction amongst academics and practitioners. The researcher drew on these frameworks because an objective of this particular analysis was to systematically study the whole venture. Such holistic study was expected to uncover a range of specific challenges faced by HFVs. The researcher collated a list of business model components from the four business model frameworks that were summarised in Chapter 2 (Sections 2.4.1-2.4.4). Each selected BM component was expected to illuminate a slightly different part of the venture. The final list was composed of components from each of the four chosen frameworks. The rationale for combining the four frameworks was that the resultant framework would enable the researcher to build a more comprehensive picture than any of the frameworks on its own. Table 4.1 presents the list of BM components and the corresponding interpretations that were extracted from the literature.

**Table 4.1 Business model components extracted from literature**

| Framework name | BM component | Interpretation |
|---|---|---|
| Business Model Canvas (Osterwalder & Pigneur, 2010) | Customer segments | "For whom are we creating value?"<br>"Who are our most important customers?" |
| | Value proposition | "What value do we deliver to the customer?"<br>"Which one of our customer's problems are we helping to solve?"<br>"What bundles of products and services are we offering to each Customer Segment?"<br>"Which customer needs are we satisfying?" |
| | Channels | "Through which channels do our customer segments want to be reached?"<br>"How are we reaching them now?"<br>"How are our channels integrated?"<br>"Which ones work best?"<br>"Which ones are most cost-efficient?"<br>"How are we integrating them with customer routines?" |
| | Customer relationships | "What types of relationship does each of our Customer Segments expect us to establish and maintain with them?"<br>"Which ones have we established?"<br>"How are they integrated with the rest of our business model?"<br>"How costly are they?" |
| | Revenue streams | "For what value are our customers really willing to pay?"<br>"For what do they currently pay?"<br>"How are they currently paying?"<br>"How would they prefer to pay?"<br>"How much does each Revenue Stream contribute to overall revenues?" |
| | Key resources | "What key resources do our Value Propositions require?"<br>"Our distribution channels?"<br>"Customer relationships?"<br>"Revenue streams?" |
| | Key activities | "What key activities do our Value Propositions require?"<br>"Our distribution channels?"<br>"Customer relationships?"<br>"Revenue streams?" |

| Framework name | BM component | Interpretation |
|---|---|---|
| Business Model Canvas (Osterwalder & Pigneur, 2010) | Key partners | "Who are our key partners?"<br>"Who are our key suppliers?"<br>"Which key resources are we acquiring from partners?"<br>"Which key activities do partners perform?" |
| | Cost structure | "What are the most important costs inherent in our business model?"<br>"Which key resources are most expensive?"<br>"Which key activities are most expensive?" |
| Elements of a Successful Business Model (Johnson et al., 2008) | Job to be done | "Solve an important problem or fulfill an important need for the target customer" |
| | Margin model | "How much each transaction should net to achieve desired profit levels" |
| | Resource velocity | "How quickly resources need to be used to support target volume. Includes lead times, throughput, inventory turns, asset utilization, and so on." |
| | Rules and metrics; and Norms | "Margin requirements for investment, credit terms, lead times, supplier terms";<br>"Opportunity size needed for investment, approach to customers and channels" |
| Value Mapping Tool (Bocken et al., 2013; Yang et al., 2017) | Stakeholder value propositions | "The benefits delivered to stakeholders for which payment or another value exchange takes place" (Bocken et al., 2013) |
| | Failed value exchange | "The negative aspect of the business models" (Yang et al., 2017) |
| | Value conflicts | "Where one stakeholder benefit creates a negative for another" (Bocken et al., 2013) |
| | Purpose | "The top-level description of why the organisation is in operation...focus is on the offering, rather than the firm, to support a network or system perspective" (Bocken et al., 2013) |
| Social business model (Yunus et al., 2010) | Continuous experimentation | "a series of small experiments" that minimise risk and maximise learning |
| | Social profit objectives | Goals related to the social mission |
| | Social profit oriented shareholders | "Shareholders who understand and accept the social mission of the experiment" |

### 4.1.3 The analysis procedure

The researcher studied the 6 cases through the analytical lens of the business model components. The cases were analysed in isolation from one another. The analysis proceeded accordingly. The researcher considered each component within the case and after describing each component, considered two questions:

1. What challenges have arisen in this healthy food venture?
2. Is there anything interesting or uncertain about this component?

Question 1 was asked because:

1. The primary purpose of employing the business model components as an analytical lens was to stimulate the comprehensive study of each venture in order to uncover HFV challenges. By using the business model components as a lens to explore each aspect of the venture, the researcher expected to identify the many and varied challenges experienced by healthy food ventures. The researcher observed that the identification of challenges often led to the identification of innovative solutions, a point that will be expanded upon in the remaining thesis.

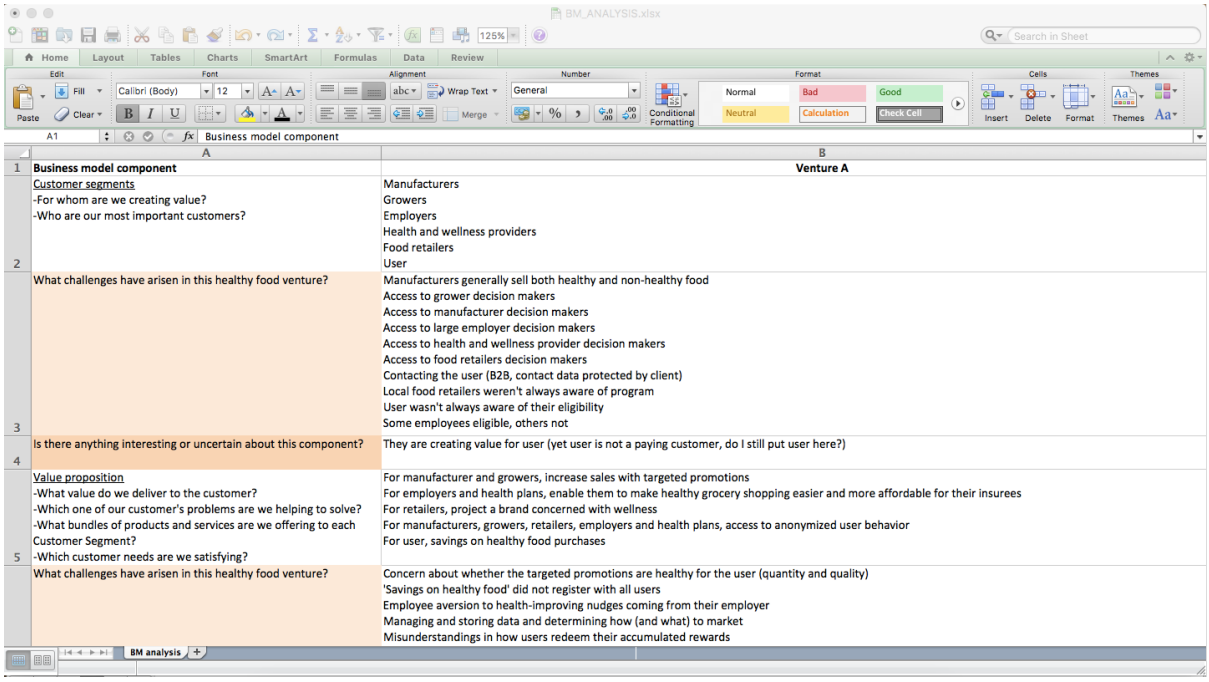
Question 2 was asked because:

2. The researcher wanted to maintain a full record of the analysis procedure. The researcher was sceptical that any of the four frameworks would offer a comprehensive analysis given the criticism of business model frameworks found in the literature. For example, Osterwalder and Pigneur suggest that their Business Model Canvas can be used to align profit and purpose in a way that is intuitively understandable, and not oversimplifying. Yet their writing on the matter suggests that value for the focal firm ultimately be translated to financial value (Osterwalder & Pigneur, 2011). This suggestion does oversimplify the complexity surrounding value forms in a purpose-driven venture. It introduces a financial limitation to our thinking about possible value forms. The researcher used this second question as an opportunity to record observations of a similar nature.

The researcher might have uncovered a similar list of challenges by developing a coding protocol for identifying challenges within the interview transcripts. However, the

business model lens primed the researcher to take a holistic approach and adopt a value perspective. This enabled the researcher to perceive challenges and their nuances in a way that might not have been possible had the researcher followed a coding protocol to identify the HFV challenges.

The researcher documented the analysis procedure using a data display. The data display was entered into a Microsoft Excel spreadsheet. Upon considering each component within a case, the researcher populated the corresponding Excel cells to describe that component. Challenges were recorded per Question 1 and process observations were recorded per Question 2.



| | A | B |
|---|---|---|
| 1 | **Business model component** | **Venture A** |
| 2 | Customer segments<br>-For whom are we creating value?<br>-Who are our most important customers? | Manufacturers<br>Growers<br>Employers<br>Health and wellness providers<br>Food retailers<br>User |
| 3 | What challenges have arisen in this healthy food venture? | Manufacturers generally sell both healthy and non-healthy food<br>Access to grower decision makers<br>Access to manufacturer decision makers<br>Access to large employer decision makers<br>Access to health and wellness provider decision makers<br>Access to food retailers decision makers<br>Contacting the user (B2B, contact data protected by client)<br>Local food retailers weren't always aware of program<br>User wasn't always aware of their eligibility<br>Some employees eligible, others not |
| 4 | Is there anything interesting or uncertain about this component? | They are creating value for user (yet user is not a paying customer, do I still put user here?) |
| 5 | Value proposition<br>-What value do we deliver to the customer?<br>-Which one of our customer's problems are we helping to solve?<br>-What bundles of products and services are we offering to each Customer Segment?<br>-Which customer needs are we satisfying? | For manufacturer and growers, increase sales with targeted promotions<br>For employers and health plans, enable them to make healthy grocery shopping easier and more affordable for their insurees<br>For retailers, project a brand concerned with wellness<br>For manufacturers, growers, retailers, employers and health plans, access to anonymized user behavior<br>For user, savings on healthy food purchases |
| | What challenges have arisen in this healthy food venture? | Concern about whether the targeted promotions are healthy for the user (quantity and quality)<br>'Savings on healthy food' did not register with all users<br>Employee aversion to health-improving nudges coming from their employer<br>Managing and storing data and determining how (and what) to market<br>Misunderstandings in how users redeem their accumulated rewards |

**Figure 4.1 Screenshot of portion of Excel data display**

The analysis approach allowed the researcher to get very close to the case study data. With such strong knowledge of the cases, the researcher was able to consider each component from the perspective of someone expert on the case (e.g., a founder of the venture). The researcher decided against a structured interview approach built around direct questions about each business model component. Instead, the researcher chose to collect the data to inform each business model component through unstructured interviews. The researcher asked the interviewees a series of questions that gave the researcher a good understanding of the business model of each venture and the challenges they faced. Appendix A offers an example of the questions asked in one particular interview.

When populating the Excel data display, the researcher attempted to mimic how a venture founder might respond when prompted with the components and the set of questions. Each component was considered deeply, yet was moved on from if nothing more came to mind. The inability to populate a cell in the data display could have multiple explanations (e.g., insignificance of the component within the case, the absence of relevant challenges or observations, insufficient data). The purpose of the selected analysis method was to holistically, and as completely as possible given the data sample, study the venture to identify HFV challenges. An HFV challenge was understood as a difficulty or failure directly related to the food or health aspect of the venture. It was also understood to include issues related to individual rights, as individual rights are closely intertwined with food and health. Negative incidents such as errors, mistakes and accidents were also considered HFV challenges.

## 4.2 Application of the business model components to Venture A

This section provides a detailed account of the analysis procedure that was carried out for Venture A, which was described in the case study insert on page 96. The results of the analysis of the first few components are presented one at a time (Sections 4.2.1.1-4.2.1.3) and then the remaining components are presented in a table (Section 4.2.1.4). Section 4.2.2 reflects upon the analysis of Venture A.

### 4.2.1 Venture A analysis

The researcher assumes the reader's familiarity with Venture A as presented in the insert. The reader is reminded that the researcher conducted a 15-week field visit at Venture A, where the researcher was permitted full immersion in the activities and conversations around the workplace. Data was collected by means of detailed field notes and over 500 minutes of formal interviews. The researcher transcribed over 100 pages of interview recordings and field notes into Microsoft Word (Cambria, 12 pt font) for Venture A alone. If the reader decided to skip over the case study insert, the reader is encouraged to return to the insert and review Venture A before proceeding.

#### 4.2.1.1 Customer segments

Osterwalder and Pigneur guide Business Model Canvas users to define their customer segments by asking the questions: "for whom are we creating value?" and "who are our most important customers?" (Osterwalder & Pigneur, 2010). The word

customer initially evoked a paying customer (e.g., client employer) as the researcher analysed Venture A. However, the researcher was guided by the question, "for whom are we creating value?" and ultimately considered non-paying stakeholders to also be customers (e.g., app users).

The researcher identified the following **customer segments**:

- Employers
- Health / wellness plans
- Growers
- Food manufacturers
- Food retailers
- App users

The analysis of this particular BM component—customer segments—prompted the researcher to identify the following **HFV challenges** faced by Venture A:

- **Difficulty obtaining access to contact the app users**—Some clients (e.g., health plans) purchased the programme for their insurees, but declined to share their insurees' contact information with Venture A for privacy reasons. This situation rendered the marketing of the programme to eligible users completely reliant upon the client. The fact that the path to the app user was through their client hindered Venture A's ability to know their end user. A Venture A executive commented on this:

  "*We are in the business of B2B so we're at the mercy of that client who is going to say yes or no to roll it out. So we knew that going into it that we are not in the consumer business. We are in the consumer business once that person signs up. Then you become in the consumer play. The reality is we are not in the consumer play. The first one who opens that door to you is that client, and that client has the veto power, because if we don't go through that client I have no way to go to the market. Creating the consumer play is a different set of features that we would have needed to have day one, which we didn't...we are not engaging with the consumer, we are just scratching the surface. We think that we are. We are starting to do that. We are really far from being engaging yet."*—Executive A2

- **Venture A programme was not always communicated widely across their food retailer network**—For example, the researcher visited a food partnered retailer and followed Venture A's instructions for obtaining and connecting a loyalty card. The researcher encountered difficulty during this process. The researcher described the incident in a memo:

  *Today I stopped by Retailer A to get their loyalty card:*

  *Customer service representative: "We don't have a loyalty card"*

  *Me: "Really?"*

  *Customer service representative: "Well sometimes health insurers help pay for food," and pulled out the card I was looking for.*

  *Me: "Oh yes, that's it! See I use [Venture A]" and demonstrated the app on my phone to what I perceived as an unenthusiastic response...*

  *At the register, the cashier had to call her manager over for assistance when scanning the card. She was confused after scanning it and said, "Well it's still the same price."*

- **Fragmented nature of the US health care system caused confusion about user eligibility**—Sometimes only a portion of the employees in a workplace would be eligible to use the Venture A programme. This was because they were in the group of employer-insured employees. The researcher accompanied Venture A as they showcased the programme to eligible users at client sites. On some occasions, the researcher observed employees at the client site learn about the Venture A programme only to find out they were not eligible to participate.

- **Many food manufacturers sell a range of products, which receive a wide range of scores from low to high**—Very occasionally, the Venture A platform featured an offer that seemed inconsistent with their mission. The researcher observed an offer for a group of products whose scores ranged from very low (unhealthy) to high (healthy). Offers such as this call into question the consistency of Venture A. Users might ask, 'Why am I being encouraged to buy a product that scores a 5?' Alternatively they may not notice the low score and assume that all products are high-scoring given that they are featured in the offer.

#### 4.2.1.2 Value proposition

The researcher identified the following **value propositions**:

- For payers (employers and health/wellness plans), the value proposition is to improve employee/insuree health
- For manufacturers and growers, the value proposition is to increase their sales with targeted promotions
- For retailers, the value proposition is the good public relations (PR) that accompany a brand supporting the health and wellness of its consumers
- For the data hungry customers (e.g., manufacturers, growers, retailers, employers, health / wellness plans), there is a value proposition to provide access to anonymised user behaviour data
- For users, the value proposition is savings on healthy food purchases

N.B. This is not an exhaustive list of Venture A's value propositions. Venture A has many value propositions. The researcher has selected a sample of important value propositions.

While studying the value proposition BM component, the researcher identified the following **HFV challenges**:

- **Venture A struggled to manage, analyse and market the quantity of data that were being collected through the Venture A platform**—During the researcher's field visit to Venture A, the researcher carried out the task of analysing user behaviour data. The Venture A team had previously lacked capacity to undertake such data analysis, given the vast amounts of data that are collected about the users' engagement and shopping behaviour

- **The marketing message of 'savings on healthy food' did not excite all eligible users**—This was evidenced by Venture A's new approach to marketing their programme. The researcher was consulted to help design an email campaign that tested different marketing messages (e.g., shop healthier for your family) in order to engage more users and better understand the motivations for user enrolment.

#### 4.2.1.3 Channels

The researcher identified the following aspects of Venture A that were related to the Business Model Canvas' **channels**:

- Marketing team communications (emails, web presence, media)
- User engagement team communications (emails)
- Sales team communications (sales calls: in-person and phone)
- Trial runs for employer and health / wellness plan
- Purchase order procedure (fee-per-user)
- Client on-boarding procedure
- Customer service team

No new **HFV challenges** emerged while considering the 'channels' BM component.

#### 4.2.1.4 The other business model components

The following table presents the analysis of the remaining business model components and the emergent challenges.

**Table 4.2 Venture A analysis table**

| Component | E.g.'s in case | Challenge | Evidence of challenge |
|---|---|---|---|
| Customer relationships | • Manufacturer, grower and retailer representatives<br>• Employer and health care client representatives<br>• Customer service representatives<br>• Sales representatives | The occurrence of inaccurate nutritional scoring due to messy food product data | The researcher observed how the concerns about product scoring were directed to the registered dieticians within the Venture A team. For example, on one occasion a user called in a complaint about a product in a recent shopping trip that seemed to be scored incorrectly. The product was in fact scored incorrectly because the product shared a Unique Product Code (UPC) with another product. |
| Revenue streams | • Client contracts—fee per employee<br>• Customer contracts—bespoke deals with CPGs and growers | ---------- | ---------- |
| Key resources | • Online platform (user interface, client interface, Venture A administration interface)<br>• Retailer loyalty cards<br>• Point-of-sale (POS) system knowledge<br>• Food product data<br>• Advanced Programming Interface (API) resources<br>• Design team<br>• Data analysis team<br>• Technology to enable rewards scheme (e.g., requires individual user accounts) | Not all food retailers use loyalty cards, which are the key to link up user purchases to their platform account | *"Do they have point of sale devices that can even accept a loyalty card or an identifier? Some of them do, some of them don't....in some cases a grocers' point of sale may accept an identifier, but they may not have the know-how to issue a loyalty card for that matter. So in that case we will issue the loyalty card for them. And in some cases, the grocers' point of sale may not be up to date yet, so you have to wait until they go through the capital investment of upgrading the point of sale"*—Executive A1 |
| | | Ingredient data on food products is messy and fragmented and constantly changing, which has meant that Venture A is operating with a food product catalogue not 100% complete | While visiting Venture A, the researcher's desk was next to a Venture A employee who was continuously working to add to and clean up their database of food products |

| Component | E.g.'s in case | Challenge | Evidence of challenge |
|---|---|---|---|
| Key resources | (listed in *Key resources* row on previous page) | Products that receive a low Venture A score could potentially be recommended as a healthy choice by some health authorities, or vice versa. | The relatively low scores given to various cottage cheese products surprised the researcher. The researcher had recently visited a doctor, who had just recommended that the researcher eat more cottage cheese as part of a healthy diet. Upon further investigation, the researcher discovered that the low scores were the result of salt content. Even so, the researcher felt the scores were too harsh. |
| Key activities | • Designing easy to use platform<br>• Onboarding retailers about program<br>• Setting up non-loyalty card retailers with loyalty cards<br>• Getting access to food product data<br>• Cleaning up food product data<br>• Integrating APIs<br>• Interfacing with money transferring systems<br>• Analysing and packaging data for sale<br>• Communicating with users about offers<br>• Communicating with CPGs and growers about offers<br>• Helping retailer demonstrate their membership in network<br>• Devising a healthy scoring system | ---------- | ---------- |

| Component | E.g.'s in case | Challenge | Evidence of challenge |
|---|---|---|---|
| Key partners | • JV Partner A<br>• Third party data aggregators<br>• Food manufacturing data teams<br>• Health associations<br>• Digital companies (servers, platform templates, APIs)<br>• Retailers | ---------- | ---------- |
| Cost structure | • Market research<br>• Customer acquisition<br>• Employees<br>• Office facilities<br>• APIs<br>• Webhost<br>• Data retrieval/processing<br>• Software design tools | ---------- | ---------- |
| Job to be done | • Lower health care costs<br>• Decrease the price of healthy food | It is difficult to evidence that Venture A is responsible for decreasing a client company's health care costs | *"We sat in a board meeting last week and a lot of the board members asked us if we thought health plans were buying in because they believed in the ability of us to make the changes that we said or if they were buying it because they wanted to have a differentiator. I would say half of us in the room said they wanted a differentiator and half of us in the room said because they believe in it. I think that it's both personally. I think that they believe in the same dream that we do. If people make the right decisions, they are going to be healthier, which will [save] them money over time. The other side of it is right now it is such a novelty, such a new product that if they are the only ones in their market, they have that as a huge differentiator. So I think it's a combination of the two. They just have to be willing to wait out the time that it takes to show that cost savings. And in the employer market, in the health plan market they know that it takes a lot of time to show that stuff."*—Executive A3 |

| Component | E.g.'s in case | Challenge | Evidence of challenge |
|---|---|---|---|
| Margin model | ---------- | ---------- | ---------- |
| Resource velocity | ---------- | ---------- | ---------- |
| Rules and metrics; and norms | ---------- | ---------- | ---------- |
| Stakeholder value propositions | • For investors and shareholders, positive financial growth<br>• For food manufacturers and growers, knowledge about consumer trends and a direct marketing channel<br>• For employers, savings on health care and healthier, happier employees<br>• For health and wellness providers, savings on health care and healthier, happier beneficiaries<br>• For food retailers, the ability to project a wellness image<br>• For user, tools to improve health | It is difficult to evidence that Venture A is responsible for increasing health and wellbeing among users | The current reporting system to clients reports the participation rate of their eligible users and the trends of their users' shopping behaviour (e.g., average shopping score of 60 increasing to 65): "*On average employers spend $560 per year/per employee in incentives and based on that you can reiterate this money for stuff that you can actually measure and not just pretend that they are running on the treadmill. "*—Employee A4<br><br>"*Would that behaviour change result in savings is still one we haven't been able to quantify yet, because of the time it takes to quantify that we are making serious behaviour change that results in biochemistry change and cost savings is an 18-24 month process. So we try to develop measurements at every step, so short, medium and long term, and now we are putting in those medium term measurements, which are more biometric type stuff.*"—Executive A3 |
| | | Low percentage of users who are engaging with platform by linking and regularly swiping loyalty cards | Venture A cited user engagement as a key issue that they needed help addressing when they invited the researcher into the 15-week internship. |
| Failed value exchange | • Privacy concerns with loyalty cards<br>• Marketing as spam Information-driven crowding out emotional/cultural connection to food | Not everyone uses or likes to use loyalty cards | The technology behind the Venture A program is wholly dependent on the user's acceptance of loyalty card use. An eligible user upon hearing about platform responded:<br><br>*"I hate loyalty cards!"* |

| Component | E.g.'s in case | Challenge | Evidence of challenge |
|---|---|---|---|
| Value conflicts | • Short term human desires versus long term human desires<br>Short term company priorities versus long term priorities | ---------- | ---------- |
| Purpose | • To help people be healthier<br>To help parent company and partners grow | Failure flagging and addressing all of the examples of their operations potentially in conflict with health purpose | The researcher observed that the Venture A team sometimes missed questionable offers, such as the offer described in Section 4.2.1.1 on page 119. |
| Continuous experiment-ation | • Experimentation with user incentives<br>• Experimentation with pricing<br>• Experimentation with platform design<br>Experimentation with value proposition to end user | Lack of understanding about the effectiveness of various incentive packages | The researcher observed that Venture A did not have enough user data to understand how effective different incentive packages were in various areas (e.g., user registration, user behaviour change, user engagement) |
| Social profit objectives | • Improve user health<br>• Empower user | Inability to engage those retailers championing health and wellbeing | There are at least a couple of retailers with strong health and wellbeing branding that Venture A has been unable to engage in retailer network; one retailer gave their reason as their respect for their customer's privacy |
| Social profit oriented shareholders | • Parent A<br>• JV Partner A | ---------- | ---------- |

### 4.2.2 Reflections about the negativity of the analysis procedure

The analysis procedure with the business model lens achieved the researcher's goal to adopt a holistic view while analysing the venture. The process also enabled the researcher to identify a diverse set of HFV challenges that were strongly evidenced in the data. The quantity and severity of identified challenges may alarm the reader. Some seem rather serious. The level of challenges experienced by Venture A was observed to be quite normal relative to the other cases however. The healthy food ventures faced food-related and health-related difficulties as they tried to promote healthy food consumption. The analysis not only surfaced HFV challenges, but a range of other challenges that seem to come with pursuing any new venture. Table 4.3 offers a selection of other challenges that were identified:

**Table 4.3 Non-HFV challenges**

| Challenge | Evidence of challenge |
|---|---|
| Lack of design expertise while building the original platform | *"Like every startup we started really small and one skill that was terribly missing was design. We didn't have a designer until the company was two years old, and I think that was a big detriment for the company because now we are redoing a lot of pages that could have been done right the first time around if the designer wasn't my intern doing it on a PowerPoint."*—Employee A4 |
| Shareholder pressures to go to market | *"I thought we went to market a little bit too early. Meaning we launched the first client a little too early. Not that we didn't have a product ready, but I thought we could have tested more. I thought we could have added other features that would have helped with engagement up front, and some of those features still don't exist today... If we had held off even 6 more months, I think [our first client] would have been fine with that, but at a certain point we needed to be showing revenue to continue the stream of money coming in."*—Executive A3 |
| User confusion about how to redeem rewards | Product team discussed the issues they had communicating the reward redemption procedure to users. The procedure required the user to log into the platform, link a bank account, and periodically execute the transfer of rewards to their bank. |
| Unable to offer face-to-face user onboarding as they scale | As Venture A grew their client base, they no longer had the capacity to visit all their client sites to onboard users. The researcher observed user confusion at a client visit. User: *"I signed up but I don't know how to use it!"* |

| Challenge | Evidence of challenge |
|---|---|
| Delays handling issues that relate to food purchasing data | The researcher observed that the data on user food purchases was aggregated externally by Venture A's joint venture partner. This sometimes caused a delay solving issues. For example, the researcher observed how it took Venture A several days to solve a user issue because of difficulties communicating with the team working on the food purchase data. |
| Employee dissatisfaction with the product quality | In interviews some employees expressed their feeling that the product was difficult-to-use or incomplete. |
| Difficulty determining an appropriate pricing framework | *"If we were building something that was an add on to an existing business model that's already out there, then the pricing framework, I'm not going to say it's set, but there's an existing range that you need to be within to compete. Our first pricing will be compared to things that were nothing like what we did, but it was the closest thing that you know XYZ company could think of to relate us to for us to show value, you know that was hard."*— Executive A3 |
| Users have trouble navigating the registration process | While observing a user registration session at a wellness fair, the researcher observed how multiple new users experienced difficulty signing up to the platform (e.g., the email addresses they were trying were not linking up with the Venture A list of eligible users) |

Going forward, challenges such as these are not presented in the thesis because they do not meet the researcher's definition of the HFV challenge. The HFV challenge is a difficulty or failure that directly relates to food, health or the consumer's individual rights.

The researcher studied these particular challenges in an attempt to help the case study ventures and other healthy food ventures continue to pursue their ambitious goals creating multiple value outcomes, as this was a key motivation of the research.

### 4.3 Application of the analytical lens to Ventures B-F

The researcher performed the same analysis procedure that was described in the previous section for the analyses of the remaining 5 cases. One difference across the 6 cases was the quantity of data. The researcher collected the largest quantity of data for Venture A due to her 15-week instalment there. This is one reason that the following analyses appear less detailed. However, the main reason that the analyses of Ventures B-F appear less detailed is because the researcher has chosen to present the remaining case analyses in a more concise format. The following subsections present only the healthy food venture challenges that emerged during the analysis procedure, as well as

the evidence of those challenges in the data. The researcher chose not to present the entire data display as was done in Section 4.2 for Venture A. This choice leaves room to discuss further analyses in subsequent chapters.

### 4.3.1 Venture B analysis

(Venture B described on page 98)

While analysing the BM components within Venture B, several HFV challenges emerged. The following list presents a selection of those HFV challenges.

- **Venture B does not measure whether the user accepted the alternative food product that was recommended as better**—Venture B's founder expressed their inability to measure whether or not their users were acting on the app's recommendations:

  *"I would love it to be that you click on it and you buy it, but right now we don't have that. We don't close the loop. Right now it is that I recommend something, you make the decision as to whether or not it actually ends up in your basket. Now that is getting easier with things like online shopping. You really could click it and add it to your home delivery on [an e-commerce retailer], but we haven't done that yet."—Executive B*

- **Food retailers may get annoyed about some of the app's recommendations to switch to alternative food products**—Venture B's founder spoke about the app's initial mistake in how they recommended alternatives:

  *"We made the mistake of recommending a healthy product even if it wasn't in the store you were standing in. So if you were [Retailer B1] and there is a consumer standing in the store with our app, we might recommend a product in [Retailer B2]. You are not too thrilled about that. So in that case, they'd actually be hostile towards our app."—Executive B*

- **Venture B does not measure whether the app impacts the sales of particular food products** —When asked if the broccoli task increased broccoli sales, the founder replied:

*"We didn't try to test that. I would say it probably didn't, because the numbers we are talking about are so small. We are talking about 200-300 customers completing this survey. From a suppliers' point of view, those are enough data points to get a statistical picture of this chain, this geography. Even if 200 people bought broccoli on that day, it wouldn't have shown up in the broccoli sales. It is too small. So we aren't going to see sales lift in this way, which raises the question, 'Is it ever going to be meaningful?' But we are experimenting with the levers."—Executive B*

- **Technology is not as proficient at making recommendations as a human nutritionist**

"*If you are looking at cereal and you want to eat [a particular cereal brand], could I prompt you to add a banana to that cereal thereby improving your overall nutritional score, adding fresh fruit with fiber, loaded with better fruit sugars? That is something that the fresh produce industry would love us to do... The produce industry gets an ad and the consumer benefits. So that again, we need to think multi-dimensionally about these incentives and these nudges...[but] right now we stay within categories. And it is a pretty tricky problem to solve when you are looking at all products. So if you are looking at cold cereal today, we recommend cold cereal. We look at the ingredient list and we are trying to come up with something that is similar to what you are looking for. And that is something that we are trying to do better and better*"—Executive B

- **Keeping users engaged enough in the app to encourage better eating habits is tricky**

*"Engagement is a huge problem. So it's that balance between engaging users but not being a nuisance. And for us the magic is in creating financial incentives. People do respond very well in my opinion to financial incentives—that are helpful, meaningful and make their lives better."*—Executive B

- **It is difficult to evidence that the app's personalized healthy food recommendations are having the intended health impacts**

  "*Corporate wellness is really taking off in the US where the government agency or a state agency or a [big employer] will spend on average, I'm hearing $500/year/employee for the sort of preventative type measures...And that could be the perfect source of money for this type of program. But the problem is, nobody has yet proven efficacy. Unless I can prove that this program will reduce the onset of diabetes or the impact of osteoporosis, then why would anyone pay for it? We have a chicken or egg problem. We don't have enough people using it to prove it and we don't have enough people using it because we haven't proven it."*—Executive B

- **The app may offend powerful food companies**

  *"We are the consumers' advocate, but we also want to work with the big food companies to change their formulation. We need to be careful to stay within the sidelines and not become the screaming from the rooftop type, because we want to work with the retailers and food companies. We may be a little less exciting for the consumer who loves a good fight, but I think in the long run we're going to have more impact."*—Executive B

- **Difficulty engaging corporate wellness and health care providers**

  *"We are now just very cautiously starting to approach these corporate wellness programs to say if you were to do something like this, a) what would we have to prove and b) how much would you be willing to spend? So I don't have the answers for that yet but I fear that the burden of proof is high and the willingness to spend is low. I'm not sure the economics are going to work out especially well. Especially when I match up the consumer incentive. How much do I have to give you the consumer to make you change your behaviour? If the corporate wellness program is only going to give me pennies a month, it is clearly not enough to make you change your behaviour when you are expecting dollars a month or tens of dollars a*

*month. So there may be a big mismatch there in terms of willingness to pay and willingness to change."*—Executive B

### 4.3.2 Venture C analysis

(Venture C described on page 100)

While analysing Venture C, several HFV challenges emerged. For the purpose of the analysis, the researcher considered the client hospital in which Venture C was immersed during the time of data collection to be the firm at the centre of the BM analysis. The following list presents a selection of those HFV challenges.

- **It was difficult to support senior citizens in their recovery after they were discharged from the hospital**

  *"So sure enough people would be discharged to home and they couldn't go to the grocery store. They would become dehydrated and malnourished and then their pneumonia would come back, or their heart failure. And then we realized this whole supper program in the evenings ... How does the hospital influence this and reduce morbidity and hospital readmittance rates? That's the outcome we want. We don't want people to be flying back in here because they haven't eaten or had anything to drink in 3 days. So we get the senior centres [involved]. We look at our own system and say, 'we could feed these people between 4 and 6 because it's not busy. I'm paying my labour rate anyway'."*— Director C

- **The hospital failed to help its mentally ill patients maintain a healthy weight**

  *"We have drugs. They don't work so well. The other thing they do is put weight on people really quickly. A bad side effect. And our patients die 25 years earlier than the general population. Somebody is hospitalized, within 2 months they can gain 30 lbs [from the drug they're prescribed] ... So healthy food in health care ... We have to change the food system here"* — Director C

- **Inability to persuade original food service provider to make the desired changes to implement the healthier food program**

  *"So I said, 'we've got to change our system and here's how we do it: we give [the original food service provider] a chance.' We had public health code violations in the cafeteria that they wouldn't fix. I'm a lawyer, I don't know if you knew that. I said, 'we've got to get a vendor who is going to meet our policy around food.' They screwed up. We declared a breach. We got a new vendor and the new vendor worked out very well for us...we happened to get a really good chef. It always boils down to the people at the table. I have been through this so many new times, transitions, getting new vendors, creating new systems—you have to have an institutional food policy, you have to go at it systems wise, but you also have to be very engaged with the people and the quality of people on the ground"*
  — Director C

- **Venture C wants to support local farms, but local suppliers often ask for a price higher than what hospitals can pay**

  *"Some of the farms are so small...the hospitals can't touch the price, and it's too, the volume is too small, so that's another barrier to getting those local foods in...So you are seeing much more at the retail direct-to-consumer here in [this region]...I think it will be an experiment to see if we can do some contract growing"*
  — Director C

- **It is expensive and difficult to measure the impact of the food system transformations**

  The founder listed off outcomes of a hospital project and then explained:
  *"Now the thing that I didn't have a lot of money for which is hugely expensive is evaluation. And it breaks my heart but I was flying, I was like, 'Let's just get it,' and now the program is heralded, people are talking about it. So maybe, would it have been great to have evaluation data, yea. But I didn't have an extra $250,000. I had $30,000 to run one kids program along a spectrum. So sometimes innovators find themselves in that situation, and its hard, and academics when they think about*

*innovation always want to do a study and you're like 'wait a minute' that imposes a regimen on an approach where you don't have a lot of flexibility to be really creative, and then when the study is finished, what do you have at the end? It's over."* —Director C

### 4.3.3 Venture D analysis

(Venture D described on page 102)

While analysing Venture D, the following HFV challenges emerged.

- **It is difficult to quantify the impact that institutional sales have on farmers**

"*The center point is get more food grown in the region to the institutions. But the why is partly to support farmers and part of the why is to support good jobs in the process and part of it is to get healthier food to the institutions and the consumers, which is not to say that local food is always the healthiest food or that all farm-to-institution sales support all farmers because you are typically selling product at a lower price point than direct sales to the farmers market...*

*...but I think that the really legitimate question is when and how and under what conditions do institutional sales really benefit producers. And anecdotally we have some answers that if you can grow a certain set of crops that institutions want and the process, packaging, and delivery logistics are streamlined enough that, even if you are getting a lower price per case, then you are saving money overall as opposed to growing a diversified set of crops and driving them to a farm stand or CSA or co-op in smaller quantities. We have a survey that's going to go out in the field in January and we are talking to different agencies of ag right now to send that out. So there's probably over 30,000 producers in the region that could potentially answer the survey. We don't know how many will answer, but we are hoping to get a big data set that answers some of the questions along those lines.*"—Director D

- **There is a feeling that it is inaccurate to assume local food is always healthier food**

  *"I think that it's true that if you are delivering product that's in refrigerated trucks regardless of where its from, it's not that it is necessarily more healthy from here versus somewhere else. It's not as if it is spoiling during transport. So I think the bigger health question is what you're choosing to serve. So if in the winter you want to serve food, you can serve roasted root vegetables as opposed to you know, packaged, over-salted canned product or something. Then it is healthier. I don't know if lettuce picked yesterday in California that arrives here on truck today is any less healthy than something picked yesterday here. I do think that, and this is not necessarily worn out by proof, but when you start making a commitment to local food you more often are making a commitment to whole food and less processed food, and so that brings a higher health return. But this rutabaga versus that rutabaga—I haven't seen anything that suggests it is more healthy because it's local."*—Director D

- **It is context specific as to whether local food is the best option**

  *"So we just had a meeting the other day about that. Is local the right point? With these guys, we are really focusing on: what are these contracts with the institutions? What kind of criteria is most important to spell out in those contracts? And you know, defining local. If local is the criteria, then defining local is really important. What does that mean?"* —Director D

- **If food is considered ancillary to the institution's purpose (e.g., education), not everyone understands the argument to focus on food**

  *"I always thought that it was ironic that on test days schools would provide healthy snacks for kids, before they took the standardized tests, but why not do that every day? So they kind of get the connection, but whether they can institutionalize it and pay for it on an ongoing basis is a question. And just create the change. You also go against, if you go too far you start serving stuff that's unfamiliar, doesn't taste good, and then you get food waste, you get backlash...food service doesn't want that feedback. You know, that's the last thing they want."* —Director D

- **A new food offering cannot be perceived to negatively affect the taste**

  (Evidenced in the previous quote)

### 4.3.4 Venture E analysis

(Venture E described on page 104)

This section presents a few of the HFV challenges that emerged in Venture E.

- **People have strong opinions about food**

  *"We just did an amazing food day effort around antibiotics and we released all of the menus and we got a series of complaints that the menus weren't good enough and that why aren't you doing vegetarian/vegan. The whole point was to talk about meat raised without antibiotics, and people were just like 'Ahh, a bunch of meat dishes!' and I was like 'Really, people can't just appreciate the fact that we are buying this amazing meat regardless of whether or not they're going to eat it.' So you know it was a little bit of a bummer and yet, when we did add vegetarian and vegan meals to the regular menu, then people started to say, 'Oh this is great—thank you so much.' But, people are people. People like to complain about things and nothing is ever good enough and we have to just keep doing the right thing because it's the right thing to do and not necessarily because it's pleasing everybody. You know, it doesn't please everybody."*—Director E

- **The increased price of food sometimes has to be passed onto the consumer and it is difficult to convince them of the benefit of the more expensive, better quality food**

  *"You know on the customer end, it's figuring out how we're going to convince people that its worth paying the extra dollar or dollars for the high quality food that we're giving them. In the hospital setting, one of the angles that I've been taking recently is looking at antibiotics and where are they overused in our system because as we, as some of us know in the public health world, the CDC is releasing figures that suggest it's a serious problem."* —Director E

- **The link from 'sustainable food' to 'healthy food' is not always obvious**

  *"So we take angles that the people in the hospital system can relate to—antibiotics is a big one. But then I'm hoping to eventually transition the salad bar out to 'no chemicals.' So you know, looking at health, looking at human health. Other institutions might look at environmental health as their priority, but in the hospital setting we look at human health."*—Director E

### 4.3.5 Venture F analysis

(Venture F described on page 106)

This section presents a few of the HFV challenges that emerged in Venture F.

- **Locally grown food can be more expensive than alternatives**

  *"There are some weird tensions in our work. We advise food businesses and we want them to succeed, obviously. The tension exists sometimes where we want them to be a local food business that sources ingredients local. But part of that is keeping their costs low. Sometimes that means not purchasing the local product or not purchasing it yet. They are just not able to afford that local product and they have to go out of the region for a substitute, which is still cheaper."*—Director F

- **They do not always succeed in persuading their startup clients to source locally grown food**

  *"I'd say the food producers we work with, some of them are really motivated to find products locally and they already are sourcing some products locally and those people who are doing that are pursuing sourcing more locally and as they scale up. They are interested in doing that. Their goal is 100% local sourcing eventually. Their hope is that producers in the region will get to a scale where their product will be a little bit more affordable or they'll be able to meet year-round supply. And it will just be a more seamless supply chain than it is now. And they are willing to negotiate. They are willing to work. There are others that I think will never try to do that. There are some who are always going to try to just manage the cost of their ingredients, and that is their prerogative"*—Director F

- **It is difficult to measure and compare diverse food systems**

  *"Another one is a task force I am involved in on farm viability indicators. We are basically looking at what to measure in farm economics on the micro-scale, so per farm. What are the most telling numbers in a farm's books of their success and of their growth? It is a lot tougher problem than you first think because it is such a diversified agricultural world up here. Dairy is sort of the 800-pound gorilla in the room, but increasingly there are fewer and fewer dairy farms in the state and more and more people are doing value added dairy or raw milk dairy or beef or culled dairy beef. This is when they take no-longer productive dairy cows and turn them into beef. There is a farm I am advising that raises emus and oilseeds and beef and farro, the ancient grain from Italy. So finding out what is a legitimate and comparable business indicator for that farm and the dairy farm, it is hard to compare those apples to oranges, so we are focused on figuring out how to compare all of the sectors and which sectors can really never be compared, but which can with a little tweaking and modification. And it really requires there to be many different stakeholders in a room for a problem to be solved like that*"—Director F

### 4.4 Healthy food venture challenges

The preceding sections demonstrate that the analysis procedure met its goals in identifying a specific set of challenges—HFV challenges—within the cases, and doing so holistically and systematically. The analysis procedure also facilitated the identification of more general challenges that arise when launching new ventures (e.g., execution, communication across teams, external uncertainties). The cases evidence the difficulty of defining and measuring healthy food consumption, a specific challenge of HFVs. Each venture has a unique interpretation of healthy food consumption, and some ventures (e.g., Venture D) are even wary of claiming the food they promote is 'healthier'. While the researcher focussed on HFV challenges, the analysis procedure also uncovered a wide assortment of non-HFV specific challenges, such as those challenges that were presented in Section 4.2.2.

### 4.5 Analysis procedure observations

The researcher reflected upon the analysis procedure regularly. These reflections were captured when the researcher considered Question 2 after thinking about each BM component—'Is there anything interesting or uncertain about this component?' The volume of process observations established the need to further contemplate the BM components and their possible role within an integrated BM framework. Question 2 was asked after thinking about each BM component. This did not prevent the question from prompting observations about how the BM components interacted with one another and fit within the bigger picture of the BM construct. The following paragraphs highlight key observations that arose during the analysis procedure—observations related to the utility of specific business model components, their interpretations and the process itself.

The reader may have noticed that some cells were left empty in the case analysis tables. Those cells corresponded to business model components that were difficult to populate across the set of cases. The researcher interpreted this difficulty as a signal that the importance of those components should be closely considered. For example, margin model and resource velocity are examples of components that proved problematic. After considering the components further, the researcher concluded that margin model and resource velocity are reasonable considerations for businesses that sell physical products, but the concepts and terminology surrounding these specific

components do not add much value for businesses that centre around digital, service-related and less tangible offerings.

The researcher was particularly attentive to different ways that the terminology surrounding the BM components might be construed. One example surfaced while considering the customer segments component. As explained previously, Osterwalder and Pigneur encourage Business Model Canvas (BMC) users to think about customer segments by asking, "for whom are we creating value?" and "who are our most important customers?" (Osterwalder & Pigneur, 2010). Yet when thinking of value in the broadest sense, a venture creates value for many stakeholders. These stakeholders extend beyond the venture's customers (customers being interpreted in the traditional sense of the term). Osterwalder and Pigneur do not bring clarity to how BMC users should define and identify customers.

For the purposes of the analysis procedure, the business model components were ordered into a list and examined sequentially using a data display. The researcher observed that a sequential approach might not be the most appropriate if it were practitioners who were using the business model component to design or manage a business model. The sequential analysis approach felt restrictive at times, and the researcher experienced the desire to move amongst the components more fluidly. Osterwalder and Pigneur list out their suggested business model components and number them from 1-9, yet they never explicitly encourage the Business Model Canvas user to follow this sequence (Osterwalder & Pigneur, 2010). The BMC allows users to move amongst the components.

These observations suggest the need to modify and transform the list of business model components into an integrated framework that can aid practitioners as they design and manage the BMs of their ventures. The following subsection describes the systematic approach the research took to further evaluate the analysis procedure and organise additional observations.

### 4.5.1 Evaluation of the analysis procedure

The researcher evaluated the analysis procedure against the goals that were made at the outset of the procedure (Section 4.1.1). The analysis encouraged the researcher to review the HFVs holistically and systematically. The procedure also identified a broad range of challenges faced by the HFVs. However, the procedure did not automatically offer a set of HFV insights beyond the identified challenges. Close

examination of the analysis procedure and the analytical lens revealed opportunities for further analysis of the case study data.

The analytical lens was used as the backbone of the analysis procedure, during which the researcher methodically recorded observations. The observations were then coded in accordance with the first cycle descriptive coding protocol outlined by Miles, Huberman and Saldana (Miles et al., 2013). The coding process enabled the researcher to contemplate how the analytical lens might be improved. Coding also encouraged the researcher to imagine how the analytical lens might ultimately be translated into a framework to be used not only as an analytical tool for researchers but also as an innovation management tool for practitioners. Plans about testing and developing the analytical tool into an innovation management tool are further discussed in Chapter 7, as this was not the primary purpose of the present research.

The researcher used descriptive codes to capture the patterns across the observations of this chapter's analysis. The descriptive coding process enabled the researcher to better understand and reflect upon the observations. The analysis observations are those observations that were recorded throughout the analysis procedure. The researcher used the analytical lens to analyse the cases and Question 2 prompted the researcher to regularly reflect on the procedure. The researcher made observations not only about the isolated components, but their relation to one another and the overall analysis procedure.

The descriptive codes uncovered emergent themes, which highlighted the main areas for improvement within the analytical lens and the analysis procedure. Precision, prompting and interdependency were key themes that emerged with respect to the analytical lens. Regarding the overall analysis procedure, the researcher observed the desire to move more fluidly between BM components. The Chapter 4 procedure involved a sequential movement through the components—one component at a time. The codes that corresponded to this and similar observations were clustered into a category called 'usability'. The observations suggest that the BM components could be integrated more effectively than the list format. The four frameworks that inspired the list offer examples of alternative formats (e.g., the canvas format of the Business Model Canvas, the spiral format of the Value Mapping Tool).

The first level descriptive codes about the analytical lens formed three groups of second level clusters—'precision,' 'prompting,' and 'interdependency.'

- The ‘precision’ cluster included observations related to the precision of the definitions of the BM components. First cycle codes such as ‘incompleteness’, ‘miscommunication’ and ‘misfit’ were grouped into the precision cluster.
- The ‘prompting’ cluster reflected the difficulty of populating a BM component without a list of prompts. As an example, Johnson et al.’s list of key resources prompts—people, technology, products, equipment, information, channels, partnerships, alliances, brand (Johnson et al., 2008)—might have helped the researcher to populate that component.
- The ‘interdependency’ cluster originated from observations reflecting the desire for the components to be organised to illustrate their interdependencies.

The results of the coding exercise were validated by feedback received when presenting the BM components to peer BM researchers at an academic conference. The researcher presented an analytical lens (which was simplified in comparison to the lens presented in Chapter 4). The lens drew on the components of the Value Mapping tool and the Business Model Canvas. The main feedback about the analytical lens dealt with precision and prompting. Questions were raised about the definition of value. There were concerns about the difficulty of using the lens without the aid of prompts. Precision, prompts and the other shortfalls of the analytical lens and analysis procedure are addressed further in the next chapter.

#### 4.5.1.1 Data informing the researcher’s perspective

The researcher’s perspective has been particularly informed by specific data collection experiences, which will be described in this section. The researcher both joined and facilitated a number of workshops using various innovation management tools over the course of this research endeavour. On some occasions the researcher was a participant in a workshop in which a tool was used. On other occasions the researcher was in the role of facilitator. Table 4.4 offers examples of occasions on which the researcher observed the use of such tools. The majority of the time observing tools was spent with the Value Mapping tool. These data collection experiences are described here because they have influenced the way the researcher uses and reflects upon analytical lenses.

**Table 4.4 Observation of business management tools**

| Occasion | Description | Tool used | Observation date |
|---|---|---|---|
| IfM Sustainable Value Analysis Workshop | The researcher was a participant; tool was used with academics and industry | Value Mapping tool | September, 2014 |
| Ideation workshop with clothing retailer | The researcher participated in ideation workshop to find new business model ideas | systematic ideation process | October 2-3, 2014 |
| Resource 15 Value Mapping workshop | The researcher was a participant; tool was used to address clothes washing example | Value Mapping tool | March 3, 2015 |
| Food Matters Live Sustainability Hackathon workshop | The researcher was a facilitator; session explored opportunities for developing healthier snacks | Value Mapping tool | November 23, 2016 |
| Venture I Value Mapping workshop | The researcher was a facilitator; tool was used with potential stakeholders to explore opportunities for a vertical farming project in city | Value Mapping tool | May 4, 2017 |
| Cambridge Method for Value Generation training course | The researcher was in both the roles of facilitator and participant during course; researcher observed 8 different facilitation styles | Value Mapping tool; Transformation tool; Sustainable Value Analysis tool | May 8-12, 2017 |
| Venture K Value Mapping workshop | The researcher was a facilitator; tool was used with potential stakeholders to explore opportunities to subsidize fresh produce provision for low-income families | Value Mapping tool | November 8, 2017 |

In addition to observation of innovation management tools during workshops, the researcher observed attitudes towards tools through formal interviews, informal conversations and secondary sources. In one particular set of interviews at Venture A, the researcher encouraged interviewees to review a framework for developing successful startups—the 24-Steps Disciplined Entrepreneurship framework (Aulet, 2013). The researcher designed the interview questions around the framework. The data collection and experiences gained from workshops, formal interviews, informal

conversations and secondary sources were analysed and all have shaped the researcher's perspective about what makes frameworks and tools successful.

### 4.5.2 Final reflections on analysis procedure

The observations and evaluation suggest the need to modify and transform the list of business model components into an integrated framework. This finding represents a pivotal moment in the research. The analytical insufficiency of the list of BM components changed the course of this research and prompted the researcher go back to the drawing board and revisit the data. The next chapter recounts that process. Chapter 5 will build upon Section 4.5's observations and evaluation to develop a more integrated and comprehensive BM framework.

# Chapter 5

## 5. Developing the new business model framework

This chapter builds upon the previous chapter's proposition to modify and combine the list of business model components into an integrated framework. Overall, Chapter 4's list of BM components supported the goals set out for the analysis procedure (Section 4.1.1). However upon reflecting on the overall analysis process, the researcher had concerns about how effective that specific lens would be in helping practitioners successfully design and manage their business models. The researcher closely evaluated the analytical lens and the analysis procedure in order to identify opportunities for improvement.

This chapter starts off by presenting a key observation of the evaluation of the Chapter 4 analysis procedure (Section 5.1). It represents a turning point in the research. The subsequent section—Section 5.2—channels the insights from the data collection experiences and the evaluation of the Chapter 4 analysis to define the criteria for a successful BM framework. The BM framework is developed in Section 5.3, evaluated in Section 5.4 and finalized in the remaining sections.

### 5.1 Key observation of the Chapter 4 evaluation

The careful approach that the researcher took to reflect on Chapter 4's analysis procedure and analytical lens enabled the researcher to observe more than just the lack of precision, prompts, interdependencies and usability. The evaluation enabled the researcher to identify a critical issue in the business model literature—the poor differentiation between the business model and business model innovation. The ambiguity of the BM was discussed as early as Chapter 2, however the implications of this ambiguity have yet to be fully articulated. In developing the Chapter 4 analytical lens, the researcher drew in components that were not in fact BM components. The researcher only observed this weakness in hindsight, after the evaluation of the analysis uncovered deeply rooted confusion about the nature of the BM versus BMI.

The academic literature has been frustratingly imprecise in its discussion of the BM. Scholars are prone to confusion about the precise definitions of the BM and BMI (Foss & Saebi, 2016). The researcher is (and has been) aware that there is a difference between the two. For instance, the researcher briefed the reader on the scholarly debates around BMI in Chapter 2. Despite this understanding, the researcher still

muddled the difference between the components of the BM and aspects of BMI. In summary, the evaluation of the Chapter 4 analysis emphasized the need to return to the definition of the BM and further distinguish it from BMI.

### 5.1.1 The business model and business model innovation confusion

The academic literature holds examples of 'business model' being used as a noun and a verb, as well as 'business model innovation' being used to describe a process and a result. For example, the phrase 'business modelling' has been identified as a keyword in some papers in the business model field. The existence of 'business modelling' evidences the usage of 'business model' as a verb. What is meant by 'business modelling' though? Is business modelling the act of mapping out a business model? Or is business modelling the act of innovating anew or adjusting a business model? If the latter is true, then why was 'business modelling' chosen as opposed to 'business model innovation'?

In Chapter 2, the researcher introduced two working definitions highly supported by the literature: one for the business model and one for business model innovation. However, the level of academic consensus with respect to a definition should not be the measure of a valid definition. When exploring the business model academically, it is important to consider the range of research interests that researchers bring to the business model. Diverging research interests result in a broad range of definitions. Consequently, we encounter confusion about what the business model and business model innovation are. An important part of defining a concept, if not the most important part, is that the definition is fit for purpose. Scholars should be more critical in their reading of each business model definition and ask, 'What does this actually mean, and why is it important in the context of this study?'

### 5.1.2 The working definitions

In this research, the researcher has posited that there is a link between 1) mapping out a venture's BM, and 2) identifying and understanding its challenges. The researcher set out to research the BM under the assumption that providing firms with a better way to map out their BM would increase their chances of operating a successful venture. Given this assumption, the researcher adopted the following working definition of the BM:

**business model, n.** the business model describes how a firm proposes value forms (value proposition) and delivers value forms (value delivery), and consequently captures value forms (value capture) for itself.

**Figure 5.1 Working definition of the business model**

The researcher modified Geissdoerfer et al.'s definition of business model innovation as the **working definition of business model innovation** (Geissdoerfer et al., (under review)):

**business model innovation, n.** business model innovation is the conceptualisation and implementation of new business models.

This can comprise the development of entirely new business models, the adaptation of existing ones and the transformation from one business model to another. It can affect the entire business model or an individual or a combination of its value proposition, value delivery and value capture components.

**Figure 5.2 Working definition of business model innovation**

The researcher has interpreted the BM as a description of the activity with which a venture proposes, delivers and captures value. While the BM describes the value generating activity within a venture, the BM is not itself an activity. When it comes to BMI however, the researcher has interpreted BMI as activity. The researcher has understood BMI as the process by which new BMs are conceptualised and implemented. While the researcher has arrived at this view of the BM as a passive description versus BMI as an active process, the researcher recognises that this view has yet to find consensus in the literature.

### 5.1.3 The new working definitions and visual aids

The researcher proposes the following new working definitions, which will be used going forward:

**business model, n.** the business model is a specific set of components that illustrate how a firm proposes value forms (value proposition) and delivers value forms (value delivery), and consequently captures value forms (value capture) for itself at a particular snapshot in time.

**Figure 5.3 Updated definition of the business model**

**business model innovation, n.** business model innovation is the process of modifying any aspect of the former business model, in which the very first business model snapshot at time, t=0 is a blank set of business model components.

**Figure 5.4 Updated definition of business model innovation**

This thesis has already suggested the insufficiency of words to fully communicate some ideas. As a result, the researcher has decided to supplement the working definitions with a visual aid, which has been inspired by Osterwalder and Pigneur's visual of the evolution of the BM (Osterwalder & Pigneur, 2010):

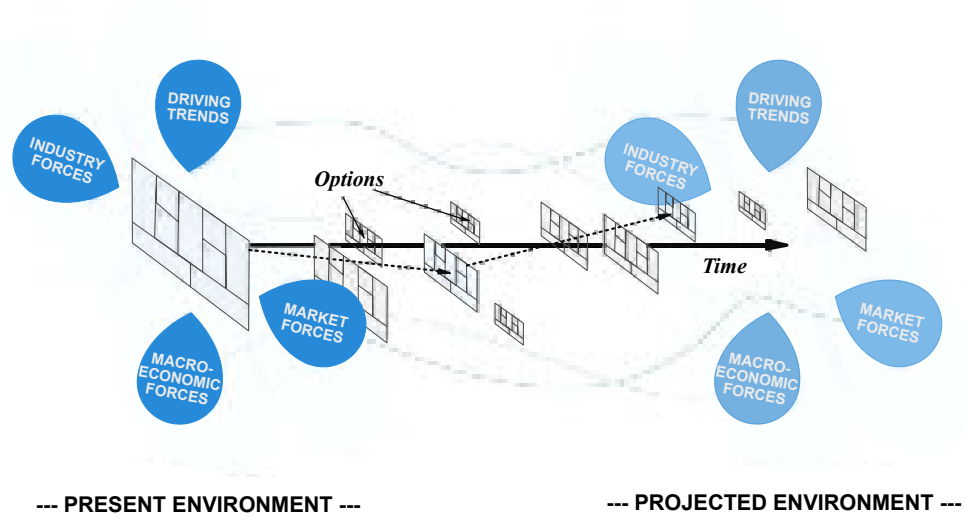
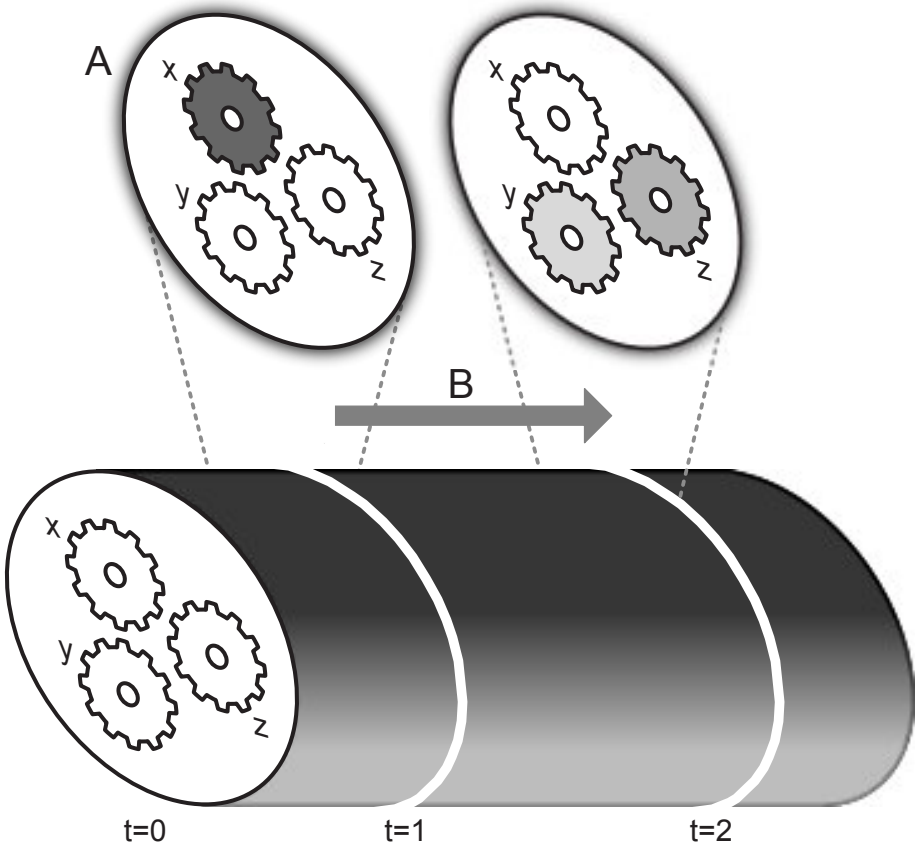



**Figure 5.5 Business model evolution in light of a changing environment** from (Osterwalder & Pigneur, 2010)

The visual aid that is illustrated on the following page is proposed to supplement the business model and business model innovation definitions. The researcher encourages the reader to memorize or note this aid, as it will help to differentiate the two definitions in the context of this research. Figure 5.6 presents the aid: a solid cylinder of heterogeneous material. The **cylinder is** meant to represent **business model innovation over time**. This **cylinder is therefore** understood as **the business model lifecycle**. The **cross sections** of the cylinder **are the business models** at different points in time.




Legend

A business model
B business model innovation
x value proposition
y value delivery
z value capture
t time

**Figure 5.6 The business model lifecycle**

The visual aid of the BM lifecycle brings more precision to the definitions of the BM and BMI. The next section will build upon the newfound precision.

## 5.2 A successful business model framework

This section outlines the criteria for a successful BM framework. A closer look at the academic discourse around the term 'framework' reveals that some authors have a much more specific understanding of framework than the definition found in the Oxford English Dictionary: "an essential or underlying structure; a provisional design, an outline; a conceptual scheme or system" ("framework, n.," n.d.). For example, Meredith argues that a conceptual framework is something that not only describes, but brings

explanatory power to the nature of a phenomenon (Meredith, 1993). However, the researcher recognizes this statement reflects Meredith's arbitrary choice to use framework as the word to describe structures that have explanatory power. The researcher rejects this narrow interpretation and builds on the dictionary's definition. Going forward, a framework will be understood in this thesis as an underlying structure that brings clarity or order to a phenomenon.

Figure 5.6's business model lifecycle helps to illustrate the business model framework—it is the cross section of the cylinder that we get at time, t=0 (Figure 5.7).

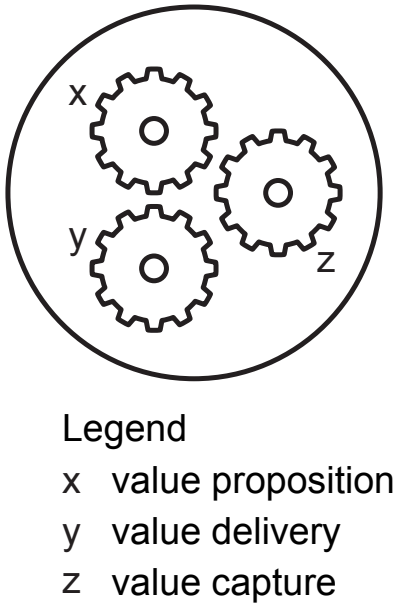



**Figure 5.7 BM framework portion**

The Chapter 4 analytical lens was intended to be a business model framework. Yet the use of the lens and subsequent reflection revealed that it did not meet the researcher's expectation of a business model framework. The individual business model components were imprecisely defined and their interdependencies were not made explicit. The Chapter 4 analysis and reflection process enabled the researcher to generate the set of criteria for a business model framework detailed in Table 5.1. The table summarizes the criteria for a successful business model framework.

**Table 5.1 Criteria for a successful business model framework**

| Criteria | Reason for criteria |
|---|---|
| 1. Clarifies the components of the business model | Observed how analytical lens muddled the business model components with components of the business model innovation process |
| 2. Offers precise definitions of business model components | Lack of precision was a strong theme that emerged while evaluating analytical lens |
| 3. Offers a precise definition of value | The concept of value is a key concept within the business model, yet is often left undefined in the extant BM frameworks |
| 4. Offers prompts to aid users in populating the business model components | Lack of prompts was a main theme that emerged in the evaluation of the Chapter 4 analytical lens |
| 5. Demonstrates interdependencies amongst the business model components | The reflective evaluation revealed issues with to the lack of explicit interdependencies within analytical lens |
| 6. Aligns with the new working definition of the business model | Purpose of framework is to enable a user to map out the business model of a venture |
| 7. Encourages a holistic view of the venture | The holistic view is implicit within the business model definition |
| 8. Is interoperable with a business model innovation approach | The business model framework should be compatible with a business model innovation approach |

The last criterion about the compatibility of the framework with a business model innovation approach benefits from further explanation. The researcher has clarified the difference between the two concepts of the BM and BMI (Section 5.1.3). That clarification enabled the researcher to understand the significance of the HFV challenges that were identified in Chapter 4. Many of those challenges could equally be conceptualised as 'failed value exchanges'. The 'failed value exchange' is an element of the Value Mapping tool, and a concept that the researcher initially integrated into the list of BM components.

Yang et al. suggest that the identification of failed value exchanges can be a trigger for business model innovation (Yang et al., 2017). Yang et al. describe specific types of failed value exchanges with the term, 'value uncaptured,' defining value uncaptured as "the potential value that could be captured but has not yet been captured" (Yang et al., 2017). The logic of the 'value uncaptured' perspective will be fully presented and explained in Section 5.5. Without going into the logic now, the important point is that the identification of challenges, many of which can be conceptualised as 'value uncaptured', is a key step in a structured approach towards business model innovation.

## 5.3 Development of the integrated business model framework

The development of the integrated business model framework has been informed by multiple sources of data. One data source is the evaluation of the Chapter 4 analytical lens and analysis procedure. Another source is the HFV case study data. The framework has also been informed by data collection experiences in which the researcher observed practitioners' use of innovation management frameworks. Throughout the development of the integrated BM framework, the researcher was guided by the set of criteria presented in the previous section. The following subsections explain how the researcher channelled all this research into an integrated BM framework.

### 5.3.1 Components

The components of the Chapter 4 BM lens were drawn from four different business model frameworks because the researcher's case study data evidenced the importance of incorporating components from all four. Each framework stressed at least one BM component or aspect that had not been stressed in the other frameworks. The researcher first drew the components from Osterwalder and Pigneur's BMC. The researcher's case studies, as well as the academic literature, indicated that the BMC served as an appropriate starting point for the BM framework. However, the case studies also informed the researcher of the BMC's gaps. Table 5.2 presents key components that were evidenced in the case study data, yet overlooked in the BMC.

**Table 5.2 Key components overlooked in the Business Model Canvas**

| Component | Source framework | Example from case study data |
|---|---|---|
| Job to be done | Elements of a Successful Business Model (Johnson et al., 2008) | An entrepreneur at Venture B explained that their value proposition to growers developed from the knowledge that growers had no way of figuring out how their produce was being merchandized (i.e., a job to be done):<br><br>*"It turned out that the biggest headache for growers other than price, is poor merchandizing of their products. They are out of date, they are out of refrigeration, they are not displayed properly and for those guys that are branded, this is a huge pain in the neck, because they have no control over how the product looks, and it really affects their ultimate sales and their ability to resupply. So I happen to know that that was a real headache and so that was the first problem that I tackled with [Venture B]."*—Executive B |

| Component | Source framework | Example from case study data |
|---|---|---|
| Stakeholder value propositions | Value Mapping tool (Bocken et al., 2013; Yang et al., 2017) | The Venture A case demonstrated that a venture might have value propositions to groups of stakeholders beyond their paying customers. Venture A provided value to employers, health plans, manufacturers, growers, retailers and consumers. However, not all of these groups represented paying customers. |
| Purpose | Value Mapping tool (Bocken et al., 2013; Yang et al., 2017) | A director at Venture F explained the purpose that is deeply rooted in their venture:<br><br>*"It began because there are a series of relatively high profile farm and food entrepreneurs in our region who have very mission focused businesses. You know, they've from the get-go been focused on sustainability and a closed loop food economy in our region...Those folks had these mission driven businesses; they wanted to share their values of sustainability and a closed loop food economy for the region, with the immediate community and the broader public, but didn't have the time because they were busy entrepreneurs, so they actually founded [Venture F] (and many of them are still on our board) to do that story telling work for them. So we've always had this mission of sharing sustainability values and sort of a renewable food economy for our region with the greater public"*—Director F |
| Social profit-oriented shareholders | Social business model (Yunus et al., 2010) | Venture D's funders are described in a case study publication as having understood the importance of relationship building in their social venture.<br><br>The case study acknowledged:<br>• The patience of Venture D's funder and their understanding that it takes time to build such a network from the ground up<br>• How their funder patiently observed as Venture D clarified their value proposition and identified potential stakeholders<br>• How the funder recognised that relationship building was real and important work |

Each of the four frameworks had something useful to share; yet none of the frameworks was sufficient on its own. This motivated the researcher to assemble the analytical lens that was presented in Chapter 4. The lens started with the 9 components from the BMC and then incorporated the components from the other three frameworks. The process of assembling, using and evaluating the analytical lens enabled the researcher to better understand which of the 20 components were most useful. Table 5.3 presents the main observations about each component.

**Table 5.3 Observations about the 20 business model components**

| Component | Observations |
|---|---|
| Customer segments (as presented in Osterwalder and Pigneur, 2010) | Sometimes difficult to draw the line between customers and non-customers (expanded discussion in Section 5.3.2). How are external entities that would not be considered customers or partners represented on the Canvas? A generic stakeholders category would be all encompassing. |
| Value proposition (as presented in Osterwalder and Pigneur, 2010) | Osterwalder and Pigneur's focus on customer value propositions creates confusion about how to express potential value propositions to non-customers (expanded discussion in Section 5.3.2). |
| Channels (as presented in Osterwalder and Pigneur, 2010) | This is one of the components required to deliver the value proposition to the customer, however it seems unnecessary that 'channels' be its own component. Thinking about particular channels is likely helpful for prompting, but channels can be understood as a subset of value delivery. |
| Customer relationships (as presented in Osterwalder and Pigneur, 2010) | See observation with respect to 'channels.' Customer relationships are another type of activity involved in delivering the value proposition to the end recipient. |
| Revenue streams (as presented in Osterwalder and Pigneur, 2010) | As presented in Osterwalder and Pigneur, 'revenue stream' projects a pure focus on financial revenue. How are non-financial yields recognized? |
| Key resources (as presented in Osterwalder and Pigneur, 2010) | See observation with respect to 'channels.' Key resources can be grouped into 'value delivery'. |
| Key activities (as presented in Osterwalder and Pigneur, 2010) | See observation with respect to 'channels.' Key activities can be grouped into 'value delivery'. |
| Key partners (as presented in Osterwalder and Pigneur, 2010) | See observation with respect to 'channels.' Key partners can be grouped into 'value delivery'. |
| Cost structure (as presented in Osterwalder and Pigneur, 2010) | Naming cost structure as a business model component possibly goes too far into the accounting details. The business model is about the value proposition, value delivery and value capture, where value is understood in the broadest sense. Cost structure might also be integrated into 'value delivery' considerations. |
| Job to be done (as presented in Johnson et al., 2008) | Job has proved too narrow a word. For instance, consider one 'Job to be done' that surfaced while analysing Venture B. Venture B was aware of the job the grower had to check up on the produce merchandising. However thinking of the grower's need as a job is not very intuitive. |

| Component | Observations |
|---|---|
| Margin model (as presented in Johnson et al., 2008) | The idea of establishing a target margin per product was not relevant for the 6 cases. |
| Resource velocity (as presented in Johnson et al., 2008) | Resource velocity was not relevant for the 6 cases. |
| Rules and metrics; and Norms (as presented in Johnson et al., 2008) | This component did not easily bring anything to mind for the 6 cases. The prompts shared in Table 4.1 were not useful. |
| Stakeholder value propositions (as presented in Bocken et al., 2013) | Much easier to express stakeholders and value propositions when taking the perspective that a firm makes a value proposition to all of its stakeholders. This prevents confusion about which stakeholders belong as customers. |
| Failed value exchange (Yang et al., 2017) | Many challenges recorded throughout the analysis procedure were examples of failed value exchanges. It was difficult to think of new failed value exchanges without a prompt. Realisation that this is not a BM component, but rather is more related to BMI. |
| Value conflicts (as presented in Bocken et al., 2013) | Value conflicts sometimes emerged while considering a business model component or recording challenges. It was difficult to think of new value conflicts without a prompt. Realisation that this is not a BM component, but rather is more related to BMI. |
| Purpose (as presented in Bocken et al., 2013) | It was sometimes difficult to distil purpose into a sentence. The true purpose of each of the ventures was not always so clear to the researcher. |
| Continuous experimentation (as presented in Yunus et al., 2010) | Some of the case studies exemplified this notion of the BM being a continuous experiment over time, however the experimentation is more related to BMI than a particular BM; Experimentation helps move from one BM to another. |
| Social profit objectives (as presented in Yunus et al., 2010) | This component generated similar results to the 'purpose' component given that social profit is a driving purpose for these ventures. |
| Social profit oriented shareholders (as presented in Yunus et al., 2010) | Importance of social profit orientation was not only limited to shareholders—sometimes clients and partners reflected this orientation. The case study data and analysis results suggest that it might be helpful to articulate the motivations and ethics of the various stakeholders when mapping a BM. |

The observations and reflections enabled the researcher to refine the set of essential business model components. Figure 5.8 illustrates how the initial set of business model components evolved into the set of components presented in Table 5.4. The final set of components emerged after multiple iterations between the data and the list of components. If the diagram shows that a component was not carried from the left-hand to the right-hand side, it signifies that the component was observed to be

insignificant for the BM framework. Some of the initial BM components appear to have undergone significant changes. For example, the 'revenue streams' component on the left side transformed into 'value return' and 'value recovery' on the right side. The researcher observed that the BMC's 'revenue streams' placed too much focus on financial value. The researcher also observed that the BMC's 'revenue streams' was being called upon to answer both *what* and *how* questions. To overcome these issues, 'revenue streams' was converted to 'value return' and 'value recovery'.

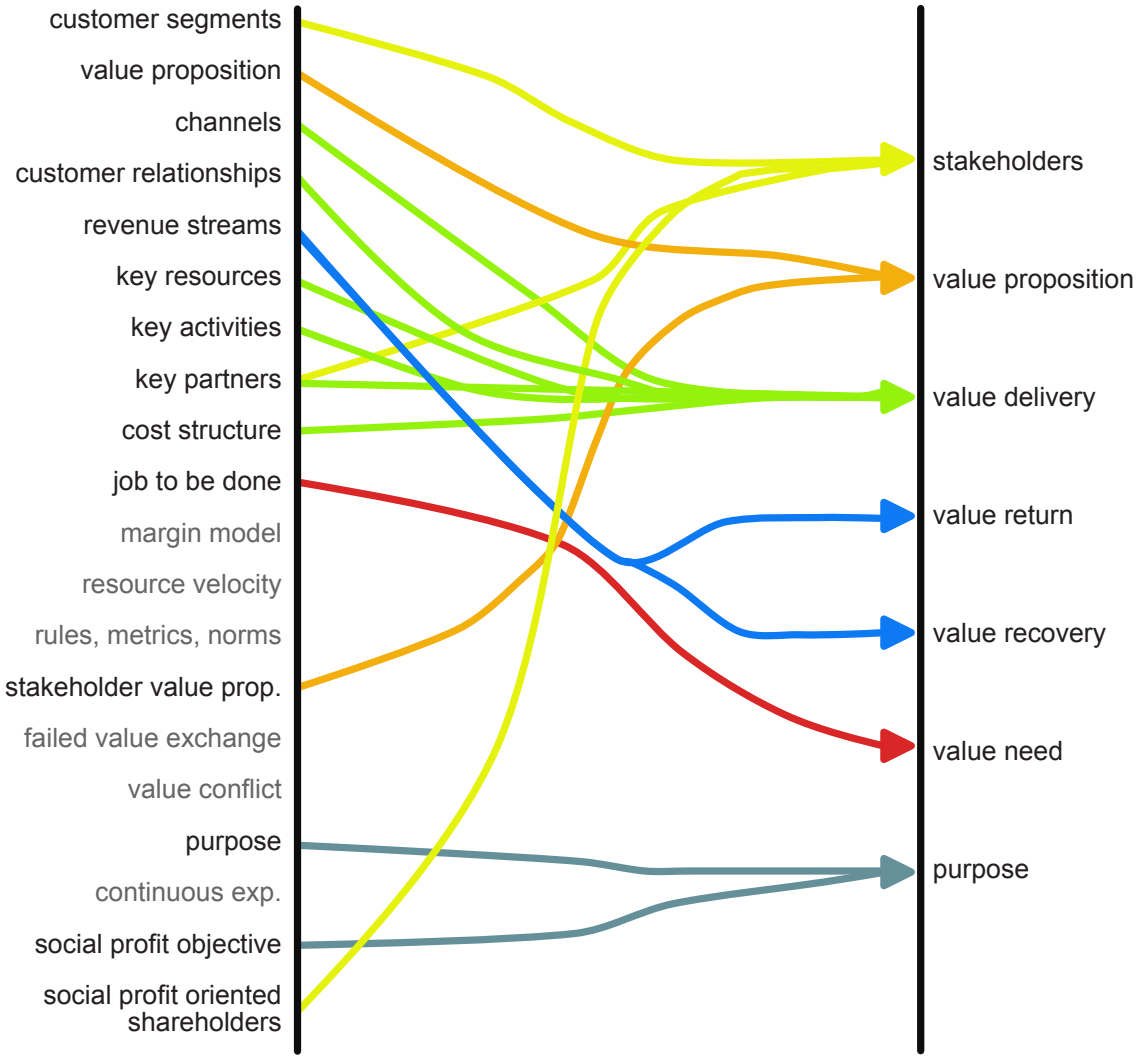



**Figure 5.8 Transformation from initial to final business model components**

The final list of business model components to be integrated into the business model framework, along with their definitions, are presented in Table 5.4:

**Table 5.4 The business model components**

| Component | Definition |
|---|---|
| Stakeholders | The external actors who have an interest or stake in the venture |
| Value proposition | The value proposition is the type and quantity of value form(s) that a firm insists they can offer a particular stakeholder |
| Value delivery | Value delivery encompasses the numerous activities that a firm undertakes to create, produce, trade and realise their value proposition to an end recipient |
| Value return | The type and quantity of value form(s) that is returned to the firm upon the delivery of the value proposition to the stakeholder |
| Value recovery | Value recovery encompasses the numerous activities required to recoup the specified value return from the stakeholder |
| Value need | The type and quantity of value form(s) that is needed by the stakeholder |
| Purpose | The primary reason for the firm's pursuit of this venture |

Table 5.4 demonstrates the researcher's desire to be as precise as possible with regard to the written definitions of the business model components. The next section seeks to add more precision to the BM framework by assembling the components into an interdependent structure.

### 5.3.2 Interdependency of components

Illustrating the interdependencies of the business model components was a way to bring more understanding to both the individual components and the business model as a whole. The researcher knew from data collection experiences with the Value Mapping tool that the general structure of the tool offered an appropriate starting point for organising the components. The organisation of the components in the Value Mapping tool functioned well. For the new business model framework, the researcher first integrated the following three components: 'stakeholders', 'value proposition' and 'value delivery'.

One finding that emerged while analysing the cases in Chapter 4 was the need to acknowledge external actors (e.g., customers, partners, shareholders) differently, and more equitably, as is done with the 'stakeholder' concept in the Value Mapping tool (Bocken et al., 2013). While considering the two components—'customer segments' and 'key partners'—during the Chapter 4 analysis procedure, the researcher observed difficulty deciding how to categorise some actors. Did they represent a customer or a

key partner? For this reason, the researcher combined customers, partners and shareholders into a 'stakeholders' component.

Another reason that the researcher decided to acknowledge stakeholders in this way was because of observations surrounding the 'value proposition' generation suggested in the BMC. The BMC couples 'value proposition' with the 'customer segments,' however the researcher observed that the case ventures made value propositions to actors beyond just the customers. Value propositions were made to a variety of stakeholders, an observation that is supported by theory (Bocken et al., 2013; den Ouden, 2012).

As presented in Table 5.4, value delivery is the component that describes how the value proposition is produced and provided to the stakeholder. Each stakeholder value proposition requires some form of value delivery. Building from the organisation of the components in the Value Mapping tool, the researcher organised the three components in the following manner.

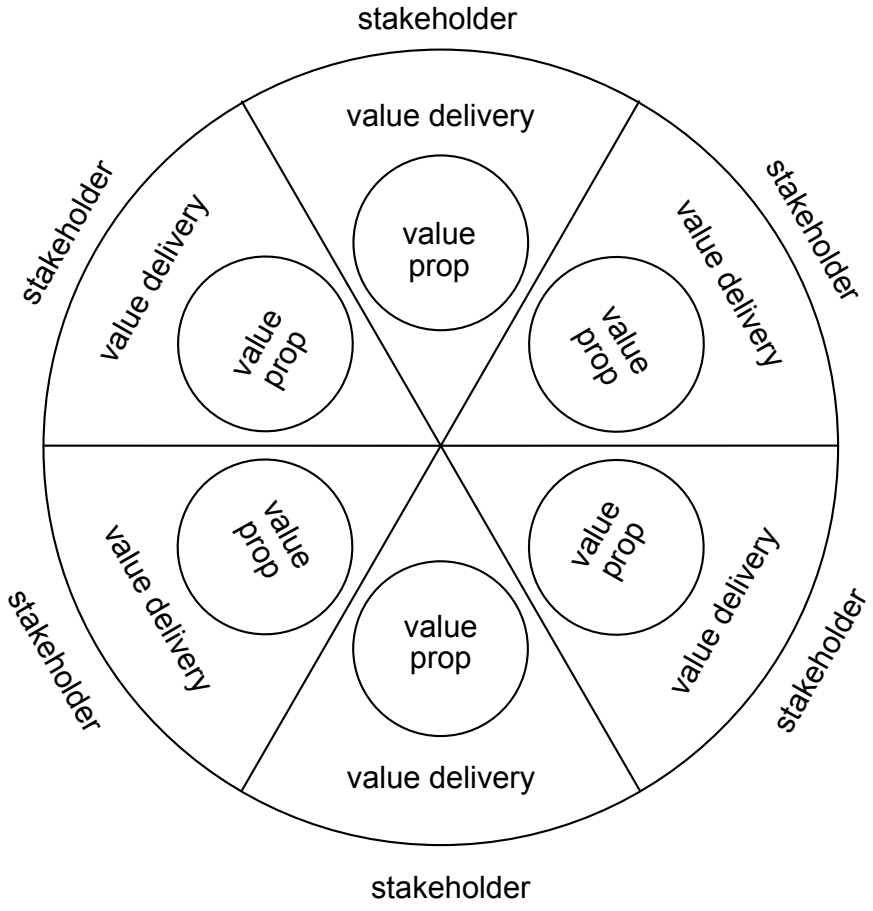



**Figure 5.9 Integration of 3 business model components**

The researcher then thought about how to integrate 'purpose' into the framework. In most Value Mapping workshops, the researcher observed how 'purpose' was discussed early on in the Value Mapping process, but then often forgotten about later on. A similar pattern was observed in the cases. Both sets of cases—the 6 that have been fully detailed and the additional 14 cases that have been summarized more briefly—hold examples of times when the firms lost sight of the core purpose of their ventures. For example, an employee at Venture A expressed this sentiment:

> *"I think we lost our main core. Probably at the beginning we defined what the [core was], what value the [Venture A] program, what value we could bring to users, but now since we are relying a lot on our client expectations, sometimes we just don't keep in mind what is the core. We go in a lot of different directions forgetting what the main core is, and maybe we should first come back to the basics to keep in mind the core...*
>
> *...What was the core? Uh, for me the core of the program is just, uh {long pause}, yea it is a difficult question, {long pause} help users to make the healthiest decision. That would be the core."*—Employee A5

Building from the data, the researcher decided to place 'purpose' at the centre of the framework to prevent purpose from getting lost.

The case study data suggested that not only was the concept of purpose relevant for the venture's firm, but for each of the stakeholders as well. Entrepreneurs at the ventures demonstrated awareness about many of their stakeholders' core interests and ethics. This data suggested that understanding each stakeholder's purpose was an important part of the business model. The researcher thought that reusing the word 'purpose' to refer to the stakeholders' core interests and ethics would be confusing though. The researcher decided to use the word 'motivation' to describe this notion of stakeholder purpose.

In fact, den Ouden describes a similar notion of stakeholder motivation when explaining the Value Flow Model. The Value Flow Model is a model that den Ouden proposes as an alternative to the Business Model Canvas, having argued the BMC to be an inappropriate tool for less traditional business models. Motivation is described as "the interests and intentions of the actors or the goals they aim to achieve," where actors are what the researcher refers to as 'stakeholders' (den Ouden, 2012).

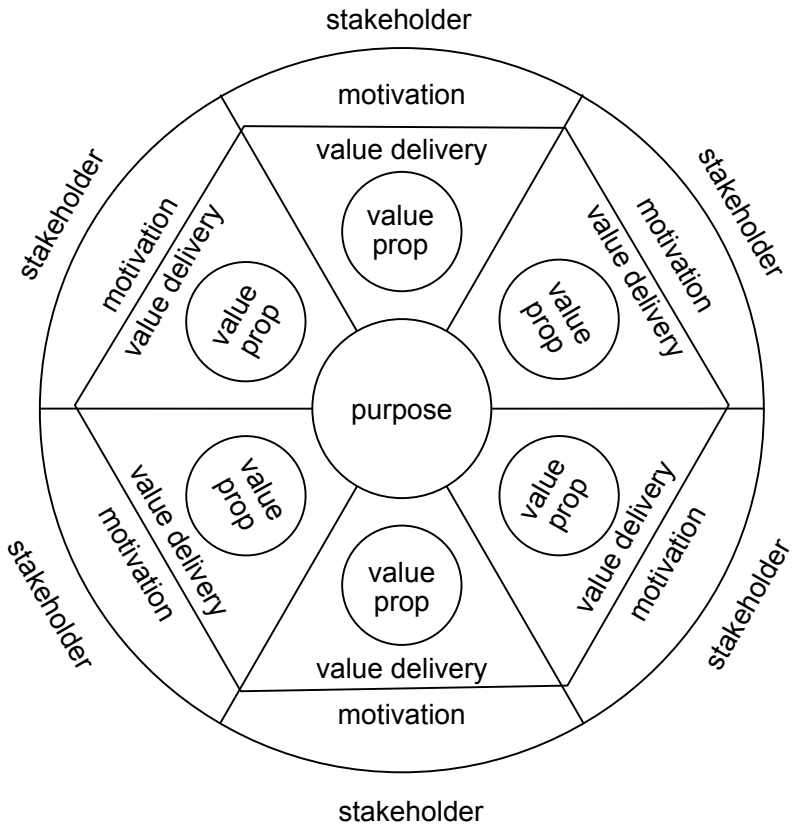



**Figure 5.10 Integration of 5 business model components**

The final components that were integrated into the framework were 'value return', 'value recovery' and 'value need'. The component 'value return' grew out of the notion that the business model should acknowledge the value streams that flow back to the firm from each stakeholder. The BMC describes these value streams as revenue streams. Yet revenue and its use in the BMC conjures up financial revenue, and the researcher observed in the case study ventures how sometimes the firms recouped non-financial returns for their value proposition to stakeholders. For example, Venture B described the value that it attributes to its user base:

> *"I have a sort of yin-yang [model, where] on one side where I am providing services to my users to grow an audience who is engaged. I want to get to 100 million people, a really big number of users. And on the other side of the equation I want to get people who want access to that user base and will pay for it. And that's the manufacturer and the retailers."*—Executive B

In Venture B, the value proposition to the app user is assistance in making better decisions about what to eat. Venture B does not charge the user for this service. The

return that Venture B receives for delivering this value form to the users is effectively a workforce. The user base can be conceptualised as a workforce for collecting data that is of interest to manufacturers, retailers and growers. The researcher decided to position 'value return' near the centre of the framework, since the component describes the value that is being returned to the focal firm.

While using the Chapter 4 analytical lens, the researcher observed that it was important to consider the 'how' of the value return. The researcher began to refer to this 'how' as 'value recovery'. What were the activities involved in receiving the 'value return'? Had the firm implemented a 'value recovery' system that would maximize its 'value return'? The researcher decided to position the 'value recovery' component as a cushion around value return. After integrating 'value return' and 'value recovery' into the framework, the researcher added a place to specify the focal firm. Having learned the importance of clearly specifying the unit of analysis during data collection experiences with other management tools, the researcher decided to make the firm explicit in the centre of the framework (Figure 5.11).

The final component to be integrated into the framework—'value need'—grew out of the 'job to be done' component from the Chapter 4 analytical lens. 'Value need' represents the type and quantity of value that a stakeholder requires. It therefore was positioned between the 'value proposition' and 'motivation' of each stakeholder. 'Value need' is the place in the framework where framework users specify the void of value to be filled. Articulating both the 'value proposition' and 'value need' for each stakeholder encourages the framework user to check that the 'value proposition' is in fact satisfying a 'value need'. Figure 5.11 illustrates how all of the components were integrated into one framework.

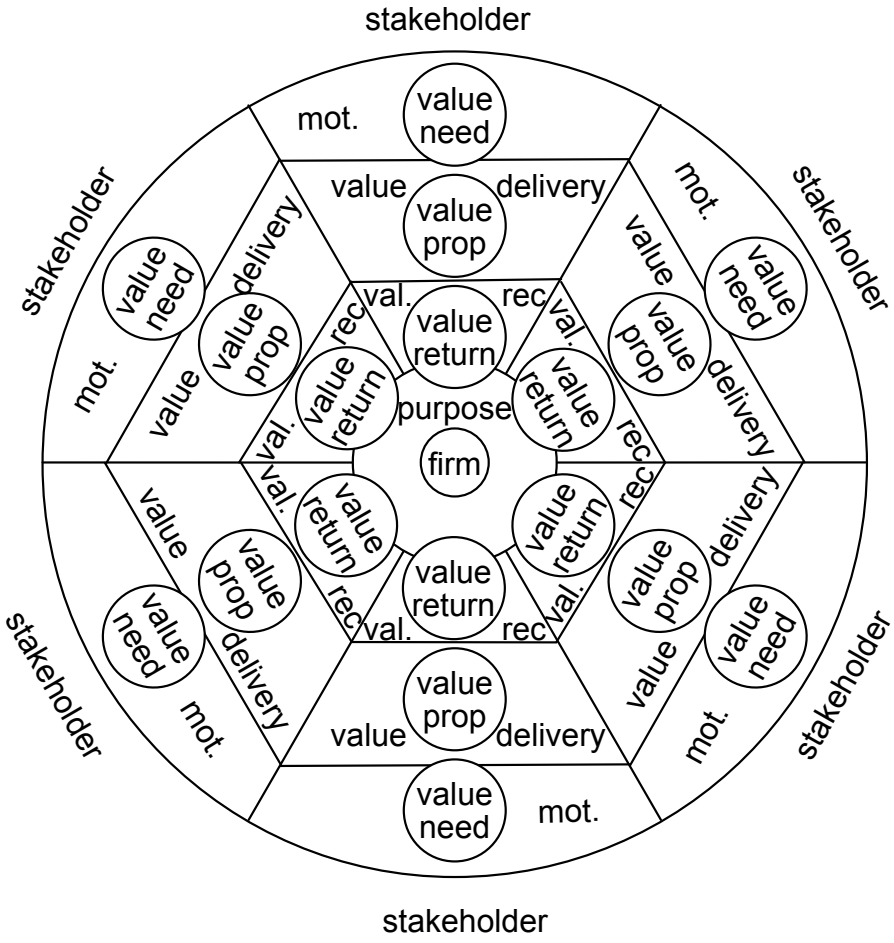



**Figure 5.11 The business model framework with all components**

The researcher searched for alternative ways to present the business model components. The framework as presented in Figure 5.11 felt too busy to the researcher. The researcher ultimately drew inspiration from nature. The researcher observed a passionflower (Figure 5.12) and learned about the symbolism of its various components. The passionflower offered an example of how to bring order amidst complexity. The researcher noticed that some simple adjustments to the Figure 5.11 framework allowed a flower shape to emerge.

**Figure 5.12 Passionflower**

The more the researcher entertained the thought of expressing the business model framework in the shape of the flower, the more it made metaphorical sense. The literature advises that the business model is something that a firm should continuously revisit and manage (Chesbrough, 2010; Osterwalder & Pigneur, 2010). A flower requires care. A flower conjures up images of evolution, growth and regeneration. Such considerations prompted the researcher to represent the business model framework in the flower shape that is presented in Figure 5.13. The researcher decided to call the new BM framework the Business Model Blossom (BMB). In Figure 5.13, only one petal is labelled with the BM components, however these components are repeated across all of the petals.

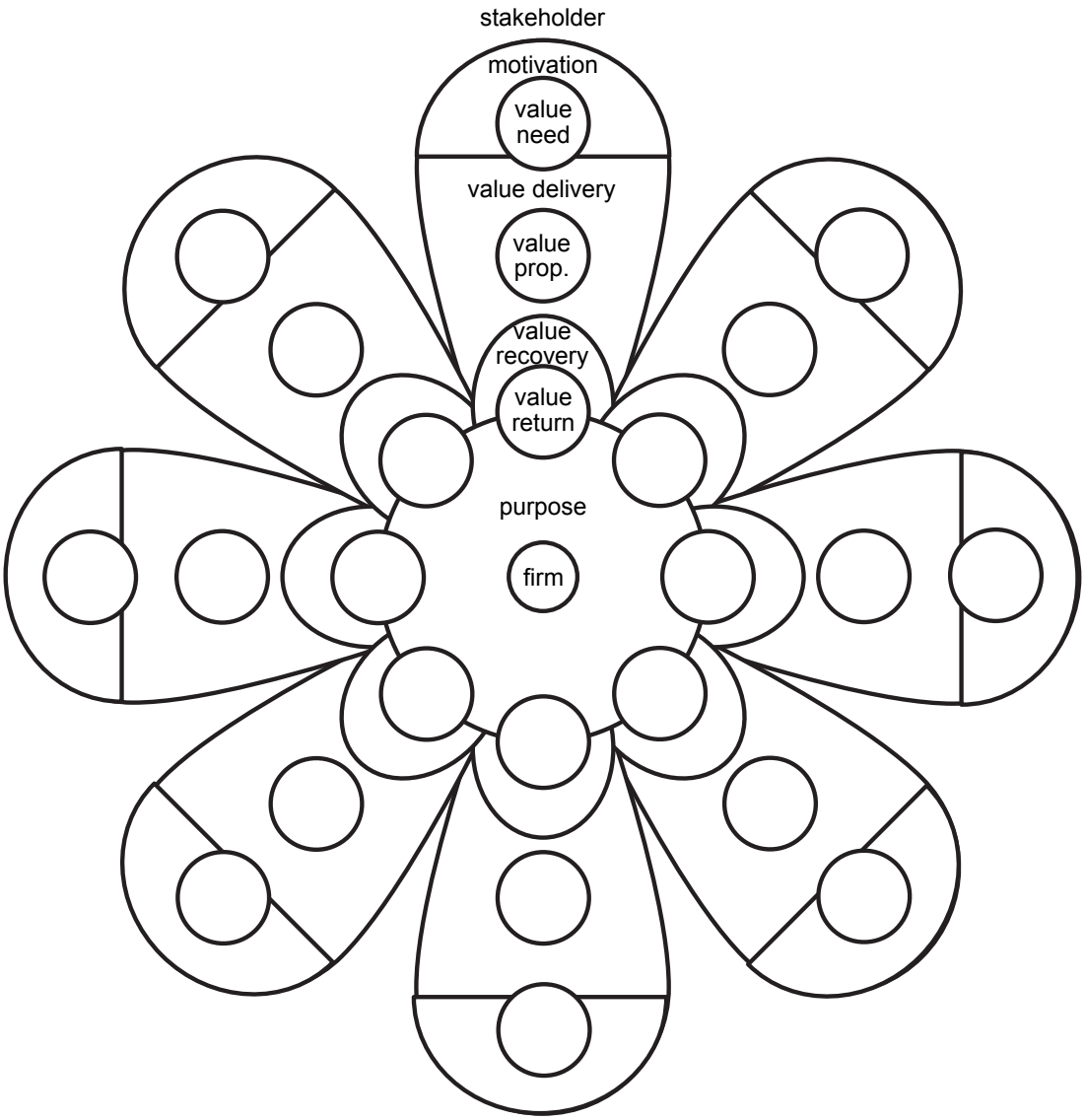



**Figure 5.13 Business model framework in flower shape**

The reader might wonder why the researcher developed a new BM framework instead of modifying the popular BMC. Other scholars have developed frameworks that adopt a similar format to the BMC—e.g., the Strongly Sustainable Business Model Canvas (Kurucz, Colbert, Lüdeke-Freund, Upward, & Willard, 2017). The researcher decided to develop a new framework because of the specific dissatisfactions with the BMC components and process that were observed while evaluating the Chapter 4 analytical lens. The case study data evidenced the importance of a BM framework that allowed its users to express a value proposition to each stakeholder. The researcher observed that the canvas format posed difficulty in expressing multiple stakeholder value propositions.

### 5.5.3 Precision and prompts

To be as precise as possible, the researcher defined the new BM components (Table 5.4 on page 157) and illustrated their relationships to one another (Figure 5.14).

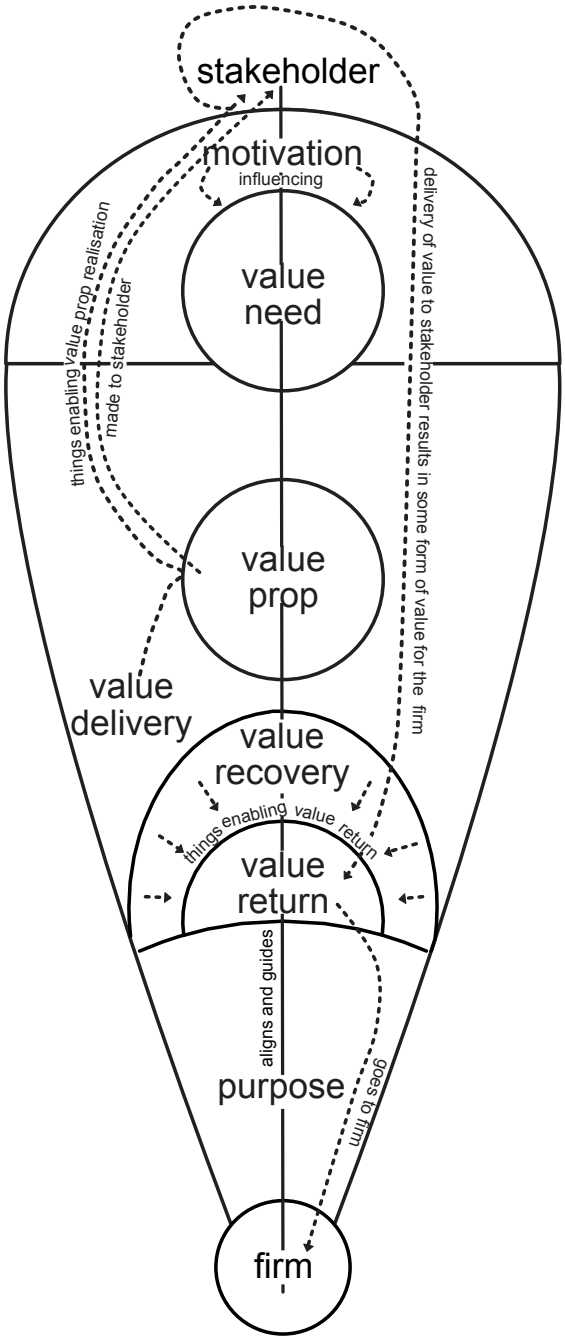



**Figure 5.14 Petal with relationships illustrated**

Table 5.4 omits three important definitions. During the development of the BM framework, the researcher identified the need for two additional components—'motivation' and 'firm', defined in Table 5.5. The table also defines the concept of value—a central concept that is often poorly defined.

**Table 5.5 Additional terminology of the business model framework**

| Terminology | Definition |
|---|---|
| Motivation | The stakeholder's specific interest(s) in the venture, as well as their more general interest(s) |
| Firm | The person or organisation leading the venture |
| Value | A potential, singular benefit that an offering is perceived to hold |

As discussed earlier, another way to bring precision to our understanding of the different business model components is by employing prompts. The publications that present the four frameworks—the Business Model Canvas, the Value Mapping tool, the Elements of a Successful Business Model, the Social Business Model—offer many examples of prompts (Bocken et al., 2013; Johnson et al., 2008; Osterwalder & Pigneur, 2010; Yang et al., 2017; Yunus et al., 2010). However, these prompts can be presented in a way that is easier for a framework user to access. The researcher reviewed the publications to collate lists of prompts that correspond to the components in the new BM framework. The researcher proposes Figure 5.15 as an example of how the prompts can be made more accessible to a framework user. The prompts were drawn from Bocken et al., 2013; Johnson et al., 2008; Osterwalder & Pigneur, 2010; Yang et al., 2017; and Yunus et al., 2010.

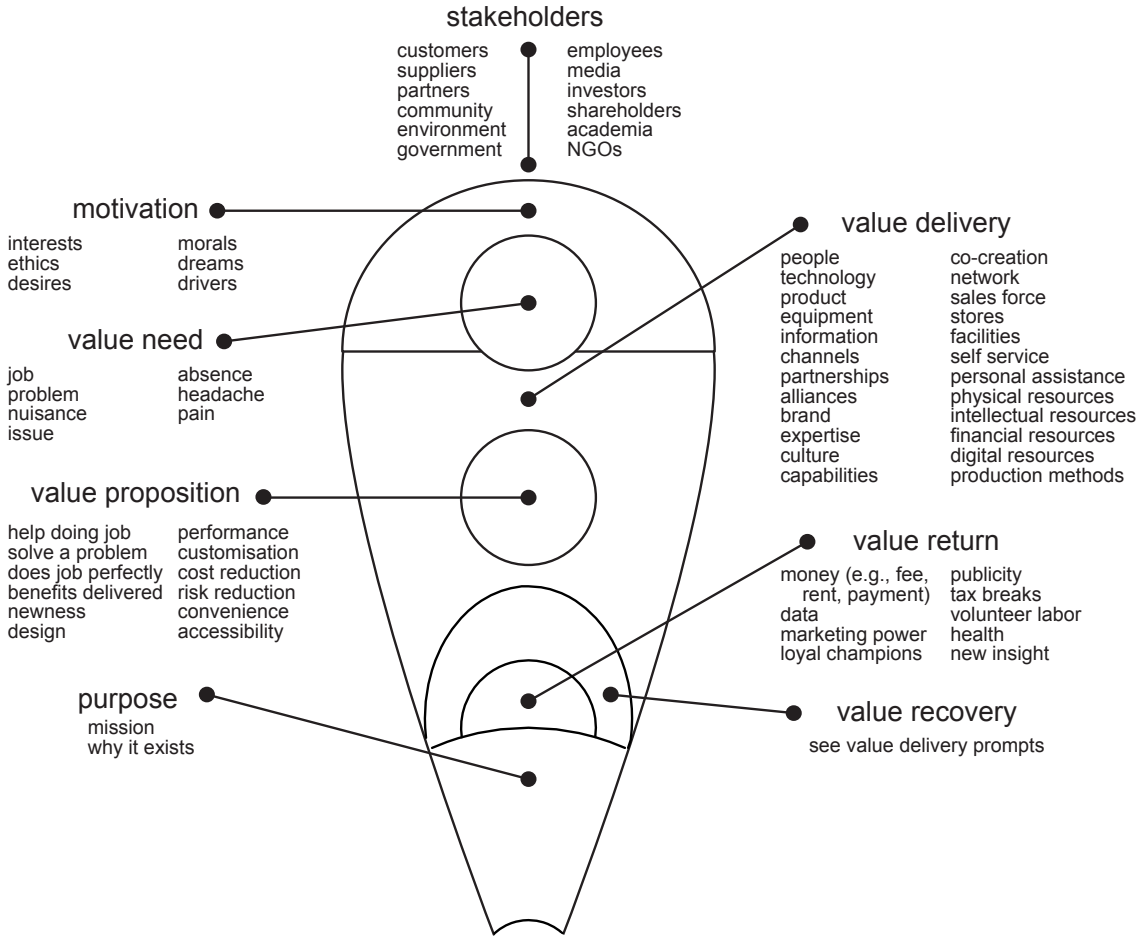



**Figure 5.15 Prompts and examples to clarify business model components**

## 5.4 Evaluation of the Business Model Blossom

The Business Model Blossom was evaluated with the same level of rigour that was applied to the Chapter 4 analytical lens. The Business Model Blossom was used as a tool to analyse the cases. It did not make sense for the researcher to exactly mimic the analysis procedure from Chapter 4 because the researcher had already carried out significant analyses while using the Chapter 4 analytical lens. The researcher could not realistically erase the Chapter 4 analyses and results from memory. Implementing the framework as an analytical tool allowed the researcher to evaluate the Business Model Blossom with respect to Section 5.2's criteria.

The researcher used the BMB to map out the case study data that informed the cases' business models. The researcher was reflective while using the framework, attentive to the suitability of the business model components and their integration. The next subsection goes into further detail about how the framework was implemented across the cases. Section 5.4.1 describes the use of the Business Model Blossom in

analysing Venture B. The use of the framework in this manner was repeated across cases.

### 5.4.1 Analysis with the Business Model Blossom: Venture B

The researcher used the Business Model Blossom to analyse the Venture B data. For the analysis, the Business Model Blossom was enlarged and printed on A0 paper. The researcher mapped out the Venture B data onto the Business Model Blossom and referenced the Figure 5.15 prompts throughout the process. The use of the BMB as an analytical tool not only helped the researcher to gain new insight into the cases, but also helped the researcher identify opportunities for the framework's improvement.

For example, the researcher observed the need to clarify how the framework should be used. While analysing Venture B, the researcher initially used one petal to represent the app user. However, the app user receives multiple value propositions. It was too chaotic to populate the app user business model components within a single petal. Two value propositions to the app user are 1) help making decisions about better eating and, 2) an easy way to earn a couple of dollars. (Reminder: The Venture B summary can be found within the case study insert if these references are unfamiliar). The two value propositions were ultimately separated out over two petals. After separating the value propositions, the process of populating the business model components within each petal was relatively smooth.

Another observation during the analysis dealt with the relationship between 'value proposition' and 'value need'. The researcher observed that in many of the petals, the value proposition and the value need were populated identically. The researcher initially wondered: 'Is the value need component serving the same function as the value proposition component? Is it redundant?' The researcher eventually observed that the components were indeed distinct. If the two components were nearly identical, that suggested that the value proposition adequately responded to the stakeholder's value need. If the two components were different, that suggested cause for concern. The misalignment between the value proposition and value need are further discussed in Section 6.3.2.

### 5.4.2 Evaluation against original business model framework criteria

This subsection incorporates a series of figures to communicate the output of the Business Model Blossom. The output evidences that the framework does comply with

the Section 5.2 criteria. Figure 5.16 shows the stakeholders that the researcher judged to be the key stakeholders for Venture B. The researcher interpreted the *key* stakeholders as those stakeholders who were most critical to the continued success of Venture B. While the investor does represent a key stakeholder of Venture B, the researcher made the decision to exclude this stakeholder. The data that had been collected with respect to Venture B investors was too limited to effectively examine this particular stakeholder group through a petal. This is an example of a limitation of the research methods discussed in Chapter 3.

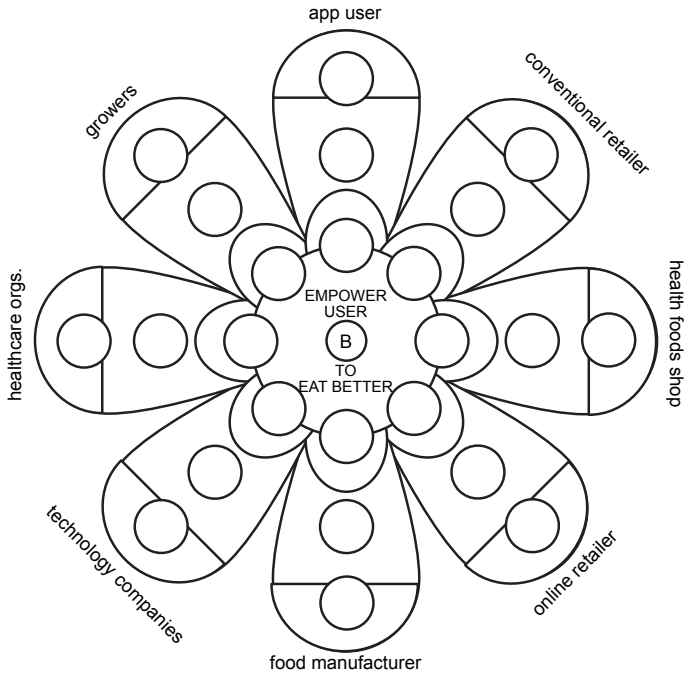



**Figure 5.16 BMB populated with stakeholders**

In addition to displaying the stakeholders, Figure 5.16 also displays the purpose of Venture B—to empower the user to eat better. This purpose was evidenced throughout an interview with a founder:

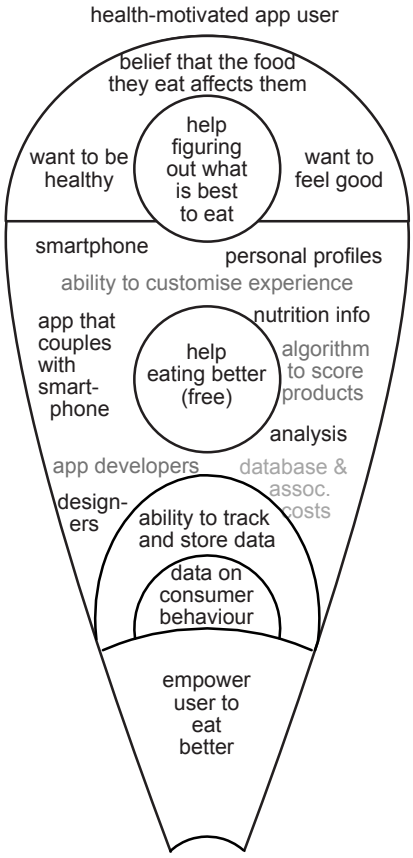
> *"So I've been in the food space now for 10 years, working on technology, to help consumers make food decisions...*
>
> *Fresh produce consumption has actually gone down. So that's in my mind a tragedy, and something that I have sort of devoted myself to solve, through technology...*

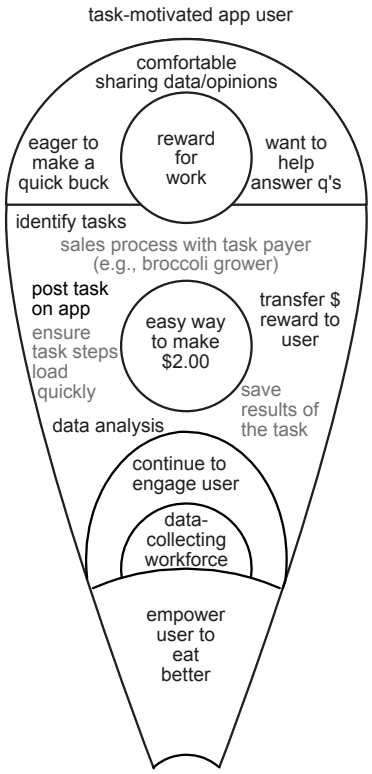
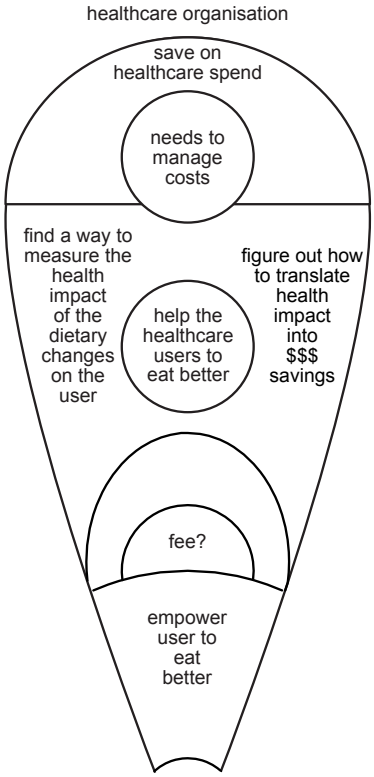
*We are the consumer's advocate, but we also want to work with the big food companies to change their formulation...*

*We always start with the consumer and work backwards. Everything we do. We are not going to take money from a manufacturer to promote their products..."*— Executive B

The images in Table 5.6 present examples of five of the petals of the framework. Each of the petals represents a unique value proposition to a stakeholder.

**Table 5.6 Examples of Venture B petals**

| Petal image | Description |
|---|---|
|  | This petal has been populated for a value proposition to the 'health-motivated app user' stakeholder group. |

| Petal image | Description |
|---|---|
|  | This petal has been populated for a value proposition to the 'task-motivated app user' stakeholder group. |
|  | This petal illustrates the mismatch between the value need of the health care organisations and the value proposition to those health care organisations. The result of the inconsistency is a lack of commitment from the health care organisations to collaborate with Venture B. |

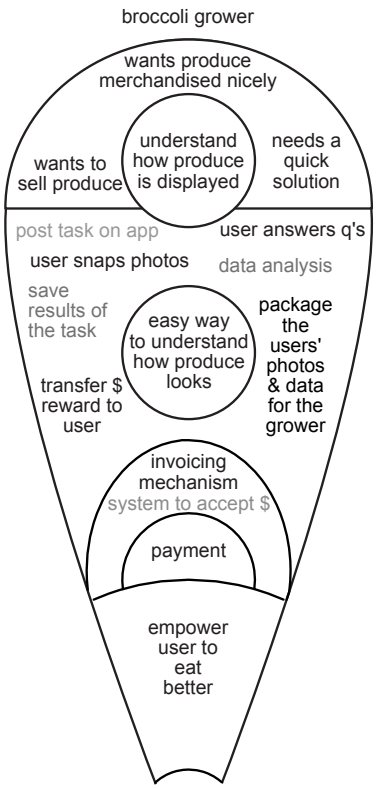
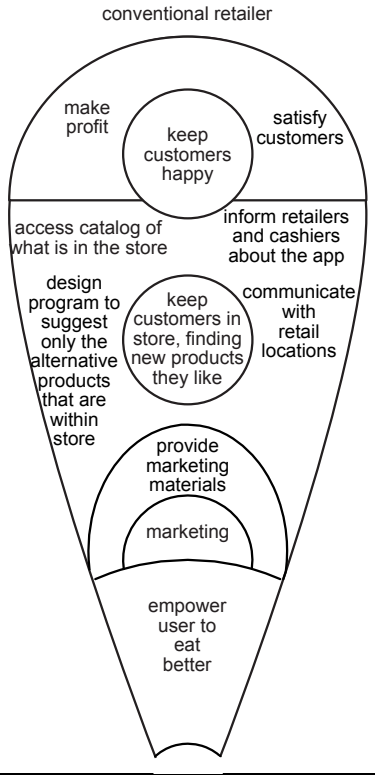
| Petal image | Description |
| --- | --- |
|  | This petal has been populated for a value proposition to the 'broccoli grower' stakeholder group. |
|  | This petal shows the value proposition to the conventional retailer. |

Table 5.6's petals demonstrate some of the strengths and weaknesses of the Business Model Blossom. The reader may have noticed that some things have been repeated across petals. One might imagine that the repetition is a problem—a form of double counting. However the repetition is not a problem. The repetition highlights the interdependencies amongst the Venture B ecosystem. Den Ouden describes the ecosystem as: "those organisations and stakeholders that affect or are affected by the innovation" (den Ouden, 2012). Consider the repetition across the task-motivated app user and the broccoli grower petals. It demonstrates that the two value propositions are dependent upon one another (Figure 5.17).

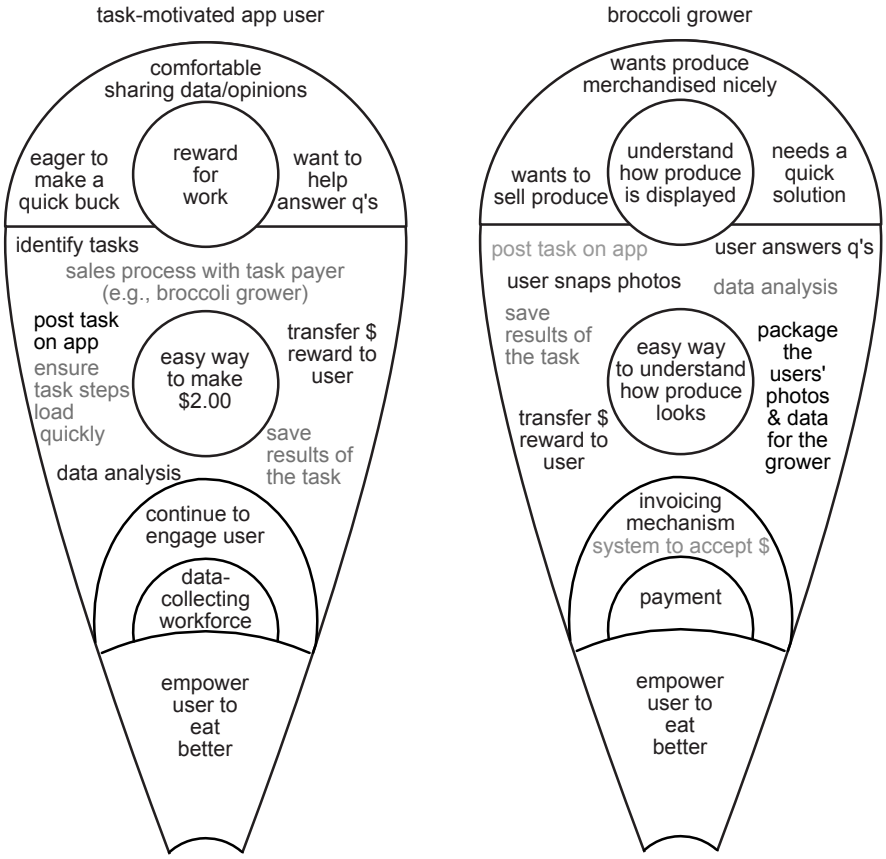



**Figure 5.17 Interdependent petals side-by-side**

The grower pays Venture B because there are a number of reliable app users within Venture B's user base who are motivated to complete tasks. The task-motivated app user is able to earn a couple of dollars because Venture B has discovered that the grower will pay for the data collected by the task-motivated app user.

The petals above demonstrate that the value delivery component easily gets overcrowded. The researcher observed difficulty in knowing that a component has been

populated completely. This might be considered a weakness: the framework's lack of clear guidance about when a component is complete. Yet despite its weaker points, the framework allowed the researcher to dissect the rich case study data and obtain greater insight than was obtained during the Chapter 4 analysis.

The researcher confirmed that the Business Model Blossom met Section 5.2's minimum criteria for a successful framework. The researcher kept these criteria in mind throughout the development of the framework, but it was the framework's use analysing the cases that demonstrated the criteria had been met (criteria reprinted below in Table 5.7). Use of the framework affirmed the achievement of the criteria related to precision, prompting and interdependencies (Criteria 1-5). The framework's compliance with Criterion 6 was evidenced by the framework user's ability to map out the various components at one moment in time, this being an important part of the business model definition. Criterion 7 came through in the framework's ability to acknowledge the wide value perspective of the venture's ecosystem of stakeholders. The final criterion is discussed in the next section.

**Table 5.7 Criteria for a successful business model framework**

| Criteria | Reason for criteria |
|---|---|
| 1. Clarifies the components of the business model | Observed how analytical lens muddled the business model components with components of the business model innovation process |
| 2. Offers precise definitions of business model components | Lack of precision was a strong theme that emerged in the evaluation of the analytical lens |
| 3. Offers a precise definition of value | The concept of value is a key concept within the business model, yet is often left undefined in the extant BM frameworks |
| 4. Offers prompts to aid users in populating the business model components | Lack of prompts was a main theme that emerged in the evaluation of the analytical lens |
| 5. Demonstrates interdependencies amongst the business model components | The reflective evaluation revealed the issues that arose due to the lack of explicit interdependencies within analytical lens |
| 6. Aligns with the new working definition of the business model | Purpose of framework is to enable a user to map out the business model of a venture |
| 7. Encourages a holistic view of the venture | The holistic view is implicit within the business model definition |
| 8. Is interoperable with a business model innovation approach | The business model framework should be compatible with a business model innovation approach |

## 5.5 Value uncaptured in the Business Model Blossom

The use of the Business Model Blossom as a lens to study the cases offered insight into the significance of the challenges. While displaying the case study data with the Business Model Blossom, the researcher identified that some challenges could be conceptualised as 'value uncaptured' (Yang et al., 2017). Yang et al. suggest that the identification of value uncaptured is a trigger for business model innovation. Four types of value uncaptured have been rigorously tested and evidenced to carry meaning amongst scholars and practitioners. Figure 5.18 presents the four types of value uncaptured.

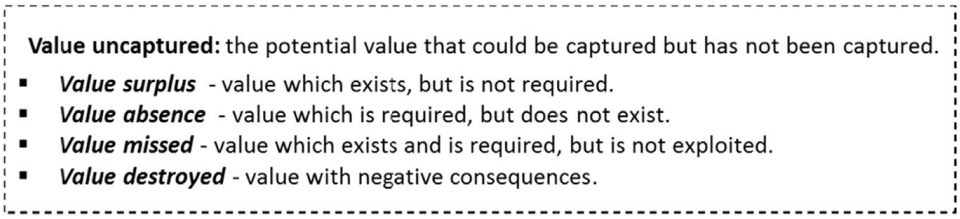



**Figure 5.18 Definitions of value uncaptured and its four types**
from (Yang et al., 2017)

The following examples from the cases illustrate how the challenges, which the researcher analysed as value uncaptured, were triggers of business model innovation.

**Example 1:**

Venture B occasionally recommended products that could only be found in competing retailers. A Venture B founder explained that directing the user to a competing retailer was a negative for both the user (who was annoyed due to inconvenience of the app's recommendation) and the retailer (who was upset because the app was driving away business):

*"We made the mistake of recommending a healthy product even if it wasn't in the store you were standing in. So if you were [Retailer B1] and there is a consumer standing in the store with our app, we might recommend a product in [Retailer B2]. You are not too thrilled about that. So in that case, they'd actually be hostile towards our app. So we rolled out a feature now that figures out the consumer is standing in [Retailer B1] and preferentially recommends products that are in [Retailer B1]. And our rationale is that that's actually more convenient for the consumer. We always start with the consumer and work backwards. Everything we*

*do. We are not going to take money from manufacturers to promote their products and I can justify preferentially showing [Retailer B1] products because it is a bit of a hassle for you to get up and get in your car and drive to [Retailer B2] for a slightly healthier product. So that's how we avoided being seen as neutral or even negative. Now we can pitch this to retailers as a positive, which is 'I can keep people in your store and avoid them going elsewhere' "*—Executive B

The quote demonstrates how Venture B consequently adjusted the app's recommendation feature to only recommend products within the store in which the user was standing. The adjustment allowed Venture B to pitch a value proposition to the retailer, whereas Venture B was previously unable to engage the retailer in a significant way. The initial challenge was analysed as an instance of value uncaptured, and more specifically as value destroyed. The app's old recommendation feature destroyed value for both the user (inconvenience) and the retailer (driving away customers). The new recommendation feature delivered value to both the user (convenience) and the retailer (customer satisfaction).

**Example 2:**

The Venture C founder knew that the readmittance rate of recently discharged hospital patients was high. Their research revealed that these patients were not eating adequately once they returned to their homes. At the same time, the founder at Venture C observed that the hospital canteen was empty during the hours that elderly people generally ate dinner (16.00-18.00). Venture C began to hold regular dinners targeted at the elderly by linking up pieces of value uncaptured. The relapse of elderly patients was analysed as value destroyed. The absence of appropriate nutritional assistance for these elderly patients was analysed as value absence. The underutilized capacity of the food service staff and hospital canteen between 16.00-18.00 was analysed as value surplus. In summary, Venture C leveraged and combined these three instances of value uncaptured in order to hold regular dinners for the community's elderly.

While Yang et al. theorize that the identification of value uncaptured can trigger business model innovation; the examples from Venture B and Venture C provide

empirical evidence that suggests value uncaptured is a trigger for business model innovation. These examples are just two of the many examples from the data that demonstrate how it is possible to analyse the HFV challenges using the value uncaptured perspective.

The BMB framework and the value uncaptured perspective allowed the researcher to conceptualise how the BMs of the ventures were innovated, however the researcher observed that it was sometimes difficult to translate the challenges into the value uncaptured terminology. Given that a driver of the research was to help HFV entrepreneurs start, operate and manage their ventures, the researcher decided that it would be appropriate to take a more practical approach to identify and articulate the challenges (i.e., an approach less academic than the value uncaptured approach). This inspired the researcher to use different language to describe the patterns that were observed in the case study data. The researcher called them 'value underperformances'. Table 5.8 presents each type of value underperformance (VU).

**Table 5.8 Value underperformances**

| VU type | Definition | Case study example |
|---|---|---|
| Value complexity | Value complexity occurs when value forms that are of interest to different segments of a stakeholder group are bundled into a single value proposition | Venture A originally combined several value propositions into one mega-value proposition, promising their eligible users financial savings, healthy food advice and the ability to measure and track their progress. Venture A realized however that they were not going to get a better understanding of the motivations of their users by promising all of the value propositions together. Venture A launched an email campaign to its eligible users, isolating different calls to action (e.g., "Save money when you grocery shop," "Get a better handle on nutrition"). An executive considered the email campaign to be a huge success. The campaign allowed Venture A to better 1) engage eligible users to participate in the program and 2) understand the effect of different value propositions on different users (e.g., not all eligible users are motivated by financial savings). |

| VU type | Definition | Case study example |
|---|---|---|
| Value inconsistency | Value inconsistency occurs when a value form within the BM is inconsistent or misaligned with another value form or component, especially the purpose of the BM or the motivation of the stakeholder | A founder at Venture C expressed the importance of working with a food service provider that was able to align its operations with the purpose of delivering healthy food in health care. The founder explained that in one of the hospital settings, a food service provider was given the opportunity to adjust its practices, yet failed to make satisfactory adjustments to align its food service offering with the hospital's updated purpose around food. The hospital ultimately replaced the old food service provider with a provider that better aligned with the new food mission. |
| Value immeasurability | Value immeasurability occurs when a value form that is critical to the business model is not being adequately measured | Venture A pitches a value proposition to their clients that they can help lower their client's health care costs. However, Venture A measures the shift in the food shopping behaviour of each client's users. A user's shopping trips scores are reported as the average of all the food item scores (higher scores indicating healthier items). A shift from an average shopping trip score of 60 in the first half of the year to a score of 70 in the second half of the year suggests that a user has increased the healthiness of their food purchases. Venture A is aware that some of their client payers are comfortable making the stretch from healthy food to health care savings, but they also realize that some of their client payers want to see measurements that are better indicators of health care savings. Venture A thought about solving this problem by integrating with devices and services that provide health data, such as heart rate, body mass index and blood pressure. |

The value underperformance patterns emerged when the researcher mapped the case study ventures onto the BMB. The researcher juxtaposed the list of HFV challenges identified in Chapter 4 alongside the populated BMB frameworks, and validated that the three types of value underperformance and four types of value uncaptured were an effective way to classify many challenges that had been uncovered in the previous phase of the analysis.

### 5.5.1 Evaluation against Criterion 8

The combination of the value uncaptured language with the BMB framework suggests the compatibility of the framework with a business model innovation approach (Criterion 8 in Table 5.7). The researcher observed, however, that not all of the HFV challenges were easily conceptualised using the four types of value uncaptured. For this reason, the researcher searched for a new way—the value underperformances—to identify challenges. The case study data suggests that like the value uncaptured, the value underperformances can also be conceptualised as the triggers of business model innovation (as shown in Table 5.8).

Going forward, the four types of value uncaptured and the three types of value underperformance are referred to as the 'Negative Value Diagnostics'. Yang et al. state that the types of value uncaptured are not mutually exclusive (i.e., an instance of value uncaptured that is conceptualised as value surplus might also be conceptualised as value missed). The researcher recognizes that the proposed types of value underperformance are not mutually exclusive either. The researcher also recognises that they overlap with the four value uncaptured forms established by Yang et al. The overlaps and lack of mutual exclusivity is not important for this research. A goal of this research is to offer insights that help HFVs succeed. In the Negative Value Diagnostics (NVDs), the researcher has proposed a set of indicators that give a BMB framework user a higher probability of identifying new value opportunities.

### 5.5.2 Clarifying the overlap of the 7 Negative Value Diagnostics

In order to better understand the overlap, the researcher examined the Venture A mega-value proposition example that was shared in Table 5.8 to exemplify value complexity, and imagined which other types of value underperformance and value uncaptured might have been used to identify this particular negative value example that holds opportunity to improve the exchange of value. Table 5.9 demonstrates that there are multiple NVD types that can be used to frame the Venture A mega-value proposition example.

**Table 5.9 Mega-value proposition example through 7 NVD types**

| Negative Value Diagnostic | Example framed through NVD type |
|---|---|
| Value complexity | Described in Table 5.8. See value complexity row. |
| Value inconsistency | Researcher cannot imagine a strong framing through this NVD type. |
| Value immeasurability | Researcher cannot imagine a strong framing through this NVD type. |
| Value surplus | Could be framed as value surplus (i.e., "value which exists, but is not required" (Yang et al., 2017))—Venture A potentially pitched more value propositions than were required to engage users |
| Value absence | Could be framed as value absence (i.e., "value which is required, but does not exist" (Yang et al., 2017))—User requires clarity on the value proposition, and by combining multiple value propositions Venture A does not provide this clarity to the user. |
| Value missed | Could be framed as value missed (i.e., "value which exists and is required, but is not exploited" (Yang et al., 2017))—By combining multiple value propositions into one mega-value proposition, Venture A did not exploit the opportunity to get a better understanding of their users' motivations to enrol in the program. |
| Value destroyed | Researcher cannot imagine a strong framing through this NVD type. |

The examination of the mega-value proposition example through the 7 types of NVDs reinforces the claim that the 7 types of NVDs overlap with one another. Further research is required to obtain a better understanding of these overlaps and the relative diagnostic power of each of the 7 types of NVDs. Figure 5.19 uses the imagery of a magnifying glass to illustrate how the NVDs serve as a lens to identify a negative value example. Each circle within the lens represents one of the NVD types. Table 5.9 was used as a guide in creating this figure. Table 5.9 shows how 4 of the NVDs could have been used to identify the negative value example of the mega-value proposition. In Figure 5.19, the spot that represents the negative value example is found within 4 of the circles.

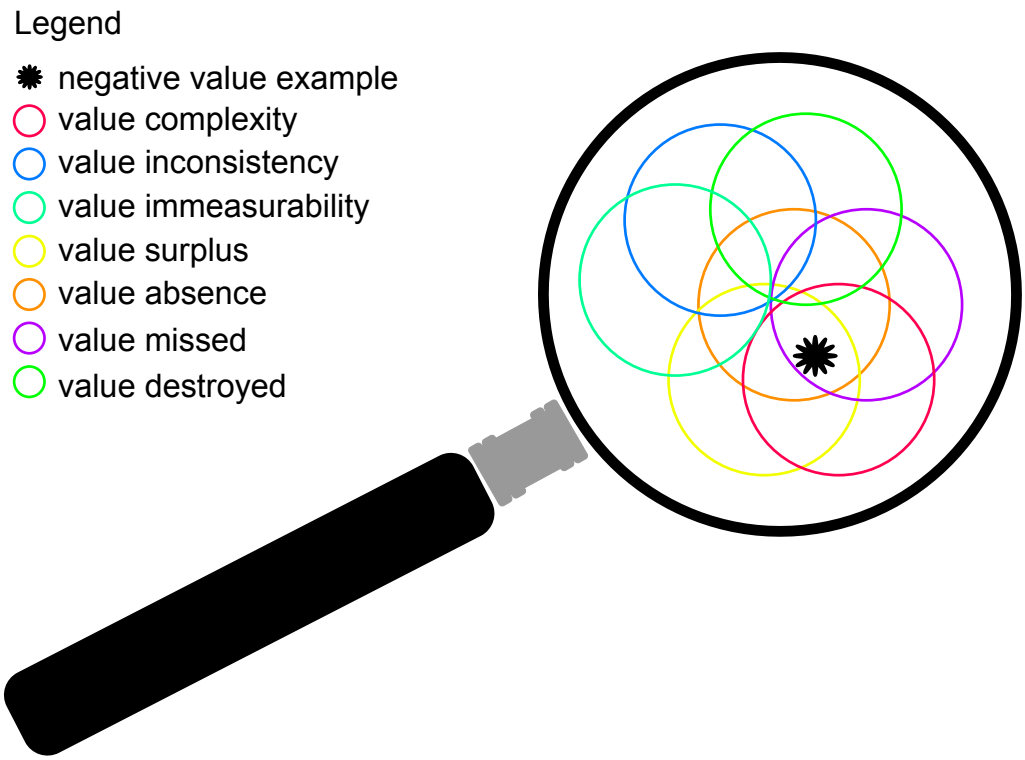
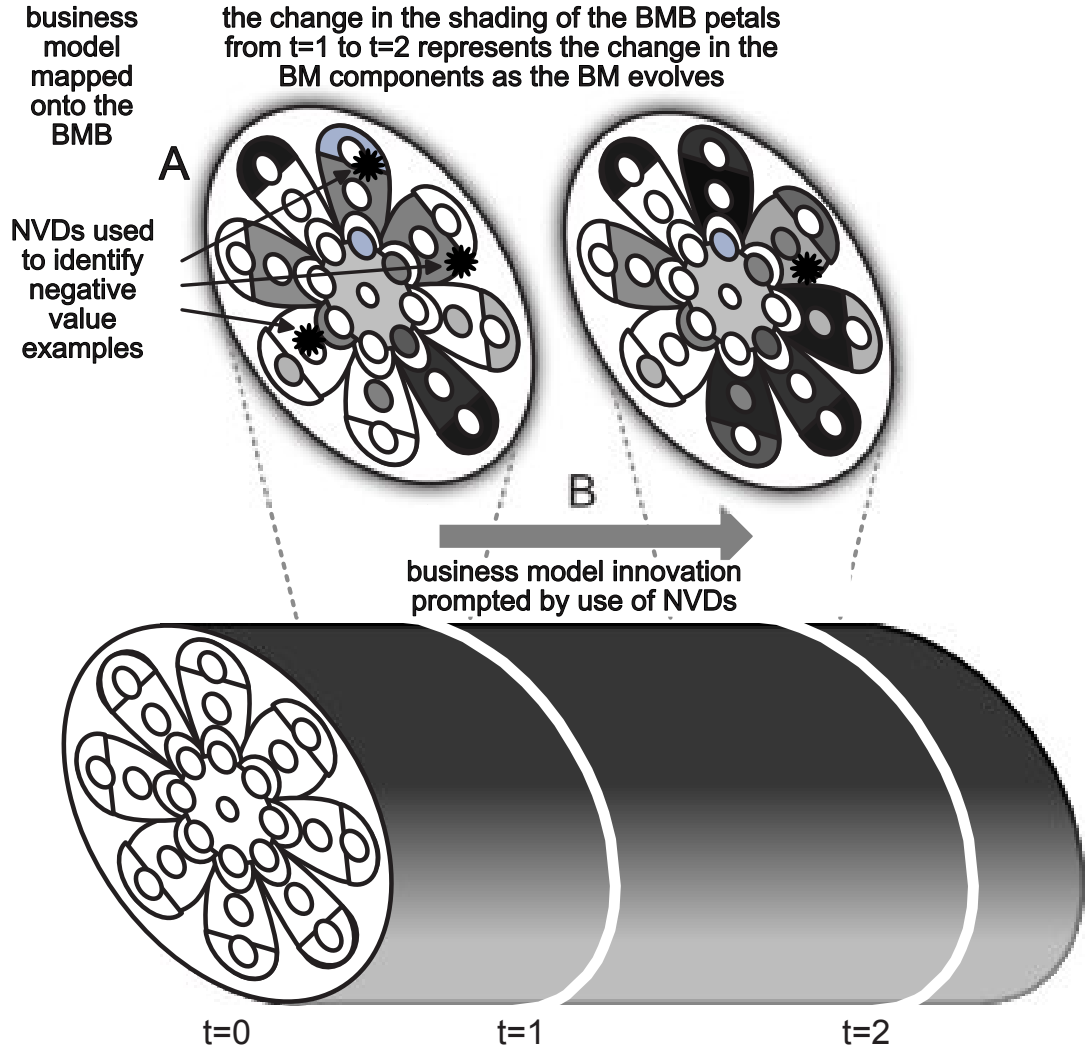



**Figure 5.19 Illustration of the overlap of the 7 NVD types in the lens of NVDs**

### 5.6 Unveiling of the new business model framework

This chapter has explained how the evaluation of the Chapter 4 analytical lens stimulated the development of a new business model framework—the Business Model Blossom. Like the Chapter 4 analytical lens, the Business Model Blossom was evaluated with respect to a set of initial criteria. While using the BMB framework as a lens to study the cases, the researcher identified new ways to conceptualise business model innovation**.** It was possible to use Yang et al.'s value uncaptured perspective and the newly invented value underperformance perspective to study the business model innovation of the case study ventures. The researcher has decided to refer to the four types of value uncaptured and the three types of value underperformance as the Negative Value Diagnostics.

The subsequent set of figures clarifies how the Business Model Blossom and Negative Value Diagnostics relate to the business model lifecycle that was illustrated in Section 5.1.3.




Legend

A business model
B business model innovation
t time
negative value example

**Figure 5.20 Role of BMB and NVDs in business model lifecycle**

# Chapter 6

## 6. Healthy food venture insights from business model perspective

This chapter reports the insights that were generated when the business model and business model innovation tools were used to study the HFV case studies. Section 6.1 discusses the healthy food venture insights that emerged by adopting the business model perspective as outlined in the Business Model Blossom. The section discusses food's ability to deliver many forms of value. In Section 6.2, the researcher builds on Section 5.5's discussion, and presents additional examples of how the BMI of the healthy food ventures was analysed using the value uncaptured perspective. Emergent insights are discussed within the same section. Section 6.3 presents and discusses the HFV insights that surfaced while the researcher studied the data through the value underperformance perspective. The final section discusses the significance of the insights.

### 6.1 Healthy food ventures through the business model perspective

This section shares insights about food and healthy food ventures that were accessed by using the business model perspective. The section could have equally been titled, 'Healthy food ventures through the value perspective.' As we have seen over the course of this thesis, the concept of value is fundamental for the business model perspective. The emphasis on value is arguably the one thing that is consistent across the many business model definitions. The business model perspective encourages thinking beyond the flow of material forms and expands our thinking to consider the flow of value forms.

Food is an interesting subject to explore through the value perspective. Food and foodways (i.e., the practices surrounding food production and consumption) carry symbolism and meaning for different groups and individuals (Jones, 2007). However, much of the discourse on improving diets has been limited to the flow of tangible materials (e.g., amount of food, calories, nutrients). Jones remarks (2007):

> "In disciplines concerned with health and nutrition, few studies focus on the metaphorical aspects of alimentation; while many ethnographic works do deal with the symbolic nature of gastronomy, they tend to emphasize eating as

commensality and food as an expression of identity in ethnic, regional, and religious groups. Symbolic discourse involving cuisine is pervasive and complex, however, manifesting itself in a wide variety of contexts and exhibiting multiple meanings that may be ambiguous, conflicting, or pernicious."

The evidence that food is much more than its material form is all around us. Consider the food we give to others as a gesture of care. Consider the way that food evokes memories. Consider how food becomes a vehicle to communicate identity. The examples go on and on. "Food is never just something to eat," writes Margaret Visser (Jones, 2007; Visser, 1986).

The data collected over the course of the research evidences that the people leading these healthy food ventures are aware that food is much more than something to eat. In fact, instead of thinking about food as nutrition, we might think about food as the delivery mechanism for various value forms. Table 6.1 summarizes some examples of value forms that the case ventures have recognized and leveraged with respect to food. The second column presents examples of the value forms that food transactions might hold for consumers and the third column presents examples of the value forms that food transactions might hold for producers.

**Table 6.1 Examples of value forms leveraged by case study ventures**

| Venture | Value forms for consumers | Value forms for producers |
|---|---|---|
| Venture A *(Healthy eating app)* | *For app user:* Nutrition, individual health, family health, essential need, expression of identity, pleasure | *For food retailer:* Financial compensation, positive reputation, fulfilment (from seeing happy, healthy and loyal customers) |
| Venture B *(Personalized healthy eating app)* | *For app user:* Personal nutrition (allergens), individual health, family health, essential need, expression of identity, pleasure | *For food manufacturer:* Knowledge about their product's performance, knowledge about potential customers, marketing advantage |
| Venture C *(Healthy hospital food consultancy)* | *For hospital patient:* Nutrition, individual health, family health, wellbeing, social inclusion, pleasure | *For food service company:* Fulfilment (from seeing satisfied patients and visitors), financial compensation |

| Venture | Value forms for consumers | Value forms for producers |
|---|---|---|
| Venture D *(Local farm to institution network organisation)* | *For institution end consumer:* Connection to place, nutrition, individual health, family health, wellbeing, pleasure | *For local farmer:* Financial compensation, connection to community |
| Venture E *(Healthy, sustainable hospital food initiative)* | *For hospital patient:* Connection to place, nutrition, individual health, family health, wellbeing, pleasure | *For local farmer:* Financial compensation, ability to express ethics, connection to community |
| Venture F *(Local food production organisation)* | *For end consumer:* Connection to place, nutrition, individual health, family health, wellbeing, pleasure | *For local farmer:* Financial compensation, ability to express ethics, connection to community |

The data evidences that entrepreneurs and other innovators recognise food's ability to provide many value forms. The 20 case studies exemplify ventures that have gone beyond selling food. The ventures have architected ecosystems of stakeholders and the exchange of value forms that relate to food. Over the course of the research, the researcher has often observed innovators justify their choice to focus on the food system with the mantra "W*e all need to eat."* The researcher has also frequently heard the explanation that "*food can be used to connect almost everything".* Both of these statements reflect the value forms that are embedded within food. We eat food every day because it is essential to survival. We can employ food as the instrument to link seemingly *everything* because food 1) touches most people on a regular basis and 2) holds a number of possible value forms.

There is evidence that HFV entrepreneurs leverage and benefit from the many value forms that food holds, yet there is also evidence that food's value-richness (i.e., its possession of many value forms) creates difficulties for them. One entrepreneur linked the difficulty that exists around shifting consumer preferences to the habits and rituals that people develop around food:

> *"Our ability to move consumer preferences around food is very limiting. Food morality moves very slowly. It moves at a pace and a rate of change that's not the same as other parts of your wallet. You will switch up the money that you pay for your cable TV or insurance or any other very fungible commodity very quickly, but we tend to create long-term habits in our spend around food, and it's difficult to anticipate why exactly, but it is a very slow rate of change among*

*consumers...people have habits and rituals around food that are profound and deep."*—Executive M

Why has the researcher selected this quote to exemplify the point that the value-richness of food creates difficulties? The entrepreneur first acknowledges the difficulty of shifting food preferences, then remarks that it is difficult to anticipate why exactly we create such long-term habits around food and finally goes on to classify our habits and rituals around food as profound and deep. The dissection of this quote suggests a pattern that emerges across the case studies—an implicit recognition that there are many value forms at stake, yet the inability to explicitly address the difficulties that stem from that complexity of value forms.

Whether it was a conscious or subconscious decision, the interviewed entrepreneurs have taken advantage of the number and complexity of value forms surrounding food. However, the conversations related to value that the researcher witnessed in the work setting (Venture A) rarely extended beyond the traditional marketing jargon of 'pain-and-gain' and WIIFM (What's In It For Me?). The case study data suggest that the approach to thinking about food's value complexity could benefit from more structure.

**Insight 1: HFV entrepreneurs often recognise that the essentiality of food, and thus its regular use, renders it an important product for creating social impact.**

**Insight 2: HFV entrepreneurs often recognise the ability that food and foodways hold to deliver multiple value forms.**

**Insight 3: HFV entrepreneurs often leverage the multiplicity of food's value forms in order to design business models that create social impact.**

**Insight 4: HFV entrepreneurs often experience difficulties in communicating and handling the multiplicity of food's value forms.**

## 6.2 Healthy food ventures through value uncaptured perspective

### 6.2.1 The ecosystem surrounding the healthy food venture entrepreneur

The value uncaptured perspective is one way to bring structure to the process of acknowledging a food system's value flows and teasing apart food's value forms. As explored in the previous chapter, the case study data illustrates how the value uncaptured approach helps to identify negative value, which often stimulates new value opportunities that are sought for across a wider set of actors than the customer alone. In the Value Mapping workshops (displayed in Table 4.4), the researcher observed how the value uncaptured perspective helped practitioners dissect the value forms (both positive and negative) delivered by food systems. The value uncaptured perspective enabled practitioners to 1) identify opportunities to create new value flows, and 2) be explicit about the conflicts embedded in the amalgamation of value forms. The value uncaptured perspective equally served the researcher as a tool to carefully examine the healthy food ventures and the value forms delivered through food.

The value uncaptured perspective offers one way to study how the case study ventures and their initiatives came about. In Table 6.2, the researcher analyses the origin histories of three of the healthy food ventures using the lens of value uncaptured. The histories were obtained through interviews with founders.

**Table 6.2 Origin histories through value uncaptured lens**

| Origin history | Value uncaptured |
|---|---|
| The founders of **Venture A** asked themselves what other value they could provide to benefit administrators (who were already their clients at Parent A). Their research revealed that the benefit administrators could use help controlling their health care costs. In parallel, the obesity epidemic was worsening and large food companies and retailers were under scrutiny.<br><br>*"Now what can improve employees' health? There are, primarily you can do physical activity or physically active lifestyle person, which definitely has impact on your wellbeing of you and your family. But based on a lot of clinical research, what you eat has got a huge impact on your total health and wellbeing of you and your family that far exceeds the benefit of active lifestyle. So I am not saying that active lifestyle is not important, but unless you focus on what you put in your body, only [active lifestyle] may not be able to solve your problem."*—Executive A1<br><br>The founders researched existing solutions for helping people to obtain information and track eating habits. There were already examples of self-reporting tracking solutions on the market, but more objective tracking solutions were lacking. One of the founders knew a company, JV Partner A, that tracked an individual's food purchases item-by-item, but that data was being used for another purpose. It was not being used for nutritional purposes. One of the founders spoke about his knowledge that this one company was collecting itemised food purchase data:<br><br>"*I knew this was existing...I knew it, because there was nothing like it. We went into the marketplace asking for the information and nobody had [it], with the only exception that I knew of one company who had, which didn't make any use of [it], interestingly enough, and we convinced them to work with us, so that's how it came about.*"—Executive A2 | **Value absence**: Help controlling benefit admins. health care costs<br><br>**Value destroyed**: Suffering from poor health and obesity<br><br>**Value absence:** A way for food retailers to demonstrate wellbeing efforts<br><br>**Value missed:** Food can deliver health and wellbeing, yet these value forms were often underleveraged by conventional retailers<br><br>**Value absence**: Lack of food tracking solutions that used a more objective tracking mechanism than self-reporting<br><br>**Value surplus**: JV Partner A possessed data they were not leveraging |

| **Origin history** | **Value uncaptured** |
|---|---|
| The founder of **Venture B** explained that he had been using technology to help consumers make food decisions for the last 10 years. The founder shared his opinion that some people want the information to eat better:<br><br>"*We believe that most people are not intentionally eating poorly, and if they had choices, and had incentives, and were well-informed, they would probably eat a better diet. Um, so that is the hypothesis and it is very difficult to prove that."*—Executive B<br><br>The founder explained fresh produce consumption trends:<br><br>"*Despite all the efforts that the industry has made in the last 30 years—5-a-day, half your plate, you know, all of these admonishments from government and industry—fresh produce consumption has actually gone down. So that's in my mind a tragedy, and something that I have sort of devoted myself to solve, through technology*."—Executive B<br><br>At the same time, the founder knew that fresh produce growers had a difficult time understanding how their product was merchandised at different retail locations:<br><br>*"The broccoli grower really wants to know how their broccoli looks in the grocery store. Is it displayed right? Is it refrigerated? How much is it? All of these questions about how it is merchandised. There are 19,000 grocery stores in the US. It is almost impossible to keep consistent control over how the display looks. What we do is we send our users a mission. We almost crowd source our shoppers and we say, 'Hey, next time you are in the grocery store, check out the broccoli. By the way, broccoli is really good for you...' (We try to focus on products that have nutritional value) '...and when you are there, please snap a picture of the display, and we'll give you $2.'"*—Executive B<br><br>The founder knew that manufacturers wanted to understand the behaviour of the shoppers who were motivated to eat better. The founder knew they were also interested in understanding how to make their products more desirable for that audience. The founder explained how this knowledge was used to price and fund the app:<br><br>"*We provide it for free to the users, and for a fee to the manufacturers who are hungry for this data*."—Executive B | **Value destroyed:** People were eating poor diets unintentionally<br><br>**Value absence:** Some consumers wanted help obtaining information that would help them to eat better<br><br>**Value absence:** Fresh produce industry wanted to increase fresh produce consumption but they were unable to do so<br><br>**Value absence:** Fresh produce growers wanted more information about how the produce was being merchandised<br><br>**Value surplus:** Users created data while using the app in a food retailer<br><br>**Value absence:** Manufacturers wanted data about behaviour of motivated shoppers and data about products desirable to that audience |

| **Origin history** | **Value uncaptured** |
|---|---|
| **Venture C**'s founder recounted their start:<br><br>*"I came to this as a hospital executive...looking and going into a hospital and saying, 'where can I be value added?' Not in a traditional way. I am a very non-traditional person. I am all about making it up, about figuring out there is a blank space and where to go—that's the only thing that really interests me. It's a high-risk thing, but I really like it. So I go into this community hospital and I say where can I add value? And I looked around and I said, first of all, 'The food here is really terrible. What is going on?' Second of all, the CEO, the new CEO I came in under...he kind of wouldn't go into the cafeteria. He would send out for his lunch every day to a gourmet cuisine down the street. I thought, this doesn't really add up. So the other thing I realised was despite all the talk about patient satisfaction—this was a decade ago before, you have to keep in mind, before the [Affordable Care Act]—it was a lot of talk. We didn't really do anything in the systems to make people feel better when they were in the hospital both physically and psychologically...and I was also looking at stuff in the community that physicians were seeing. I was looking at type 2 diabetes among children...here we were in the middle of all of this farmland...here we are and we have a lot of local farms, we have chronic disease rates skying up. How ought we to approach it as a hospital, because diet has a lot to do with this...So I pitched to the CEO, I said what we have to do is create a hub and spoke model, we have to make a statement—healthy food in health care: we are a hospital, therefore, this is the way we eat here. You don't have to eat here, except for if you're a patient and we give patients choices and make it healthy and beautiful and wonderful. But everybody who connects with this firm, this entity, ought to be touched in some way and that is through our central food service operation."*—Director C | **Value destroyed:**<br>Terrible food<br><br>**Value absence:**<br>CEO wanted good food, but there was an absence of good food on premises<br><br>**Value absence:**<br>Patient satisfaction<br><br>**Value destroyed:**<br>Type 2 diabetes among children<br><br>**Value surplus:**<br>Local farms<br><br>**Value absence:**<br>Patients and visitors wanted tasty and comforting food that would help recovery<br><br>**Value absence:**<br>Local farms wanted low-risk contracts |

The table shows a variety of instances of value uncaptured occurring across the cases. These instances may have been identified as generic failures in a standard business analysis. However, the researcher has observed that the value uncaptured perspective is useful in conceptualising both the original business model generation and the continued business model innovation.

The underlined text in the second column of Table 6.2 is used to emphasise the instances of the uncaptured value forms most directly related to food. The entrepreneurs combined the potential value that food could offer with other value uncaptured forms in order to find and create new value opportunities. Many of the

value failures are not directly economic. The researcher observed that HFV entrepreneurs leveraged the less functional value forms of food more often than conventional retailers and restaurants. The research data and analysis build to offer the following insights:

**Insight 5: Food and foodways offer value forms that are not always leveraged in the conventional business models that feature food.**

**Insight 6: HFV entrepreneurs often leverage the value forms of food that conventional business models tend to ignore.**

**Researcher commentary: The researcher observed that the underleveraged value forms are often the links between actors that are seemingly difficult to connect (e.g., conventional food retailers and health care plans).**

### 6.2.2 Value uncaptured summary

This section has demonstrated how the value uncaptured perspective was used to 1) conceptualise the start of the healthy food ventures and 2) organise the complexity of the different value forms related to food. By using an approach such as the value uncaptured perspective to analyse and organise the value-richness of food, the researcher saw how the ventures leveraged food's underutilised value forms to start their ventures. In Chapter 5, the researcher demonstrated that the value uncaptured perspective helped to analyse how the ventures identified opportunities adjust their business models (Section 5.5). In that chapter, the researcher also suggested that the value uncaptured perspective could benefit from the complimentary perspective—the value underperformance perspective. The next section will take a closer look at the HFV data through the perspective of value underperformance.

## 6.3 Healthy food ventures through the value underperformance perspective

Like the value uncaptured perspective, the value underperformance perspective allowed the researcher to cut through the complexity of the value forms present in a system. This section takes a closer look at select examples of healthy food venture challenges that stimulated the researcher to invent the value underperformance

language. The close examination of HFV challenges using the value underperformance perspective offers insight about food's value forms within the HFV context.

By taking a closer look at each of the value underperformance examples that were introduced in the previous chapter, the researcher obtained further insights about food and the healthy food ventures. The following subsections take a closer look at each of the value underperformances that were shared in the previous chapter.

### 6.3.1 Value complexity

Value complexity is defined as an instance in which value forms that are of interest to different segments of a stakeholder group are bundled into a single value proposition.

> **Example shared in Chapter 5**
>
> Venture A originally combined several value propositions into one mega-value proposition, promising their eligible users financial savings, healthy food advice and the ability to measure and track their progress. Venture A realised however that they were not going to get a better understanding of the motivations of their users by promising all of the value propositions together. Venture A launched an email campaign to its eligible users, isolating different calls to action (e.g., "Save money when you grocery shop," "Get a better handle on nutrition"). An executive considered the email campaign to be a huge success. The campaign allowed Venture A to better 1) engage eligible users to participate in the program and 2) understand the effect of different value propositions on different users (e.g., not all eligible users are motivated by financial savings).

This data further evidences Insight 4, which says the HFV entrepreneurs experience difficulties due to the multiplicity of food's value forms. While Venture A has benefited from the multiplicity of food's value forms, Venture A has also encountered difficulties due to the multiplicity of food's value forms. The example suggests that when the value forms were not separated out into isolated value propositions and targeted toward the stakeholders most receptive to those value forms, the mega-value proposition was less effective. The data suggests that the mega-value proposition was less effective than the email campaign's isolated value propositions, however the data does not offer a certain explanation for why that was. It is possible that Venture A's mega-value proposition was less effective because the eligible user was overwhelmed

and confused by the bundle of value forms. It is possible that the eligible user was offended by the inclusion of a particular value form in the mega-value proposition. The researcher observed instances of HFV stakeholders reacting negatively to certain aspects of value propositions. Table 6.3 presents and discusses some examples.

**Table 6.3 Negative reactions to aspects of value proposition**

| Example | Researcher commentary |
|---|---|
| A Venture A founder explained that in the initial testing of their value proposition to program users, there were some people who expressed concern about their employers seeing their food data:<br><br>*"We also tested would these employees want to use it knowing that their employer technically would be seeing what they are buying, not seeing everything in their basket, but their total...There was always a dissenter in the group saying I don't want my employer seeing what I am doing so I won't participate, but the voice was never loud enough and there were never enough of them in any one given room to make us stop and think about it."*—Executive A3 | This example suggests that a portion of the user base may not like the idea of their employer tracking and knowing their food shopping behaviour. It implies the very personal nature of food behaviours. |
| An interviewee explained how their venture's recent effort to showcase sustainably raised meat was ill-received by some:<br><br>*"We just did an amazing food day effort around antibiotics and we released all of the menus and we got a series of complaints that the menus weren't good enough and that why aren't you doing vegetarian/vegan. The whole point was to talk about meat raised without antibiotics, and people were just like 'Ah, a bunch of meat dishes!' and I was like 'Really? People can't just appreciate the fact that we are buying this amazing meat regardless of whether or not they're going to eat it.'"*—Director E | This example suggests that some of their customers feel strongly about sustainable diets and expect sustainable diets to be meat-free or vegan. The example illustrates how they became offended when their expectations were not met. |

**Insight 7: HFV stakeholders sometimes take offense to an aspect of a value proposition, which suggests the risks of the multiplicity of value forms related to food / foodways for the HFV, and also suggests a link to the very personal nature of our relationship with food.**

The second example in Table 6.3 also relates to the 'value inconsistency.' The people who complained about the meat dishes expressed their concern that showcasing meat

was inconsistent with a sustainable food initiative. The next section discusses value inconsistency in greater detail.

### 6.3.2 Value inconsistency

Value inconsistency is defined as an instance in which a value form within the business model is inconsistent or misaligned with another value form or component.

> **Example shared in Chapter 5**
> A founder at Venture C expressed the importance of working with a food service provider that was able to align its operations with the purpose of delivering healthy food in health care. The founder explained that in one of the hospital settings, a food service provider was given the opportunity to adjust its practices, yet failed to make satisfactory adjustments to align its food service offering with the updated purpose the hospital set out for its food. The hospital ultimately replaced the old food service provider with a provider that was better aligned with the hospital's food mission.

This case study example conceptualises the value inconsistency as the stimulus for the replacement of the food service provider. The hospital needed a food service provider aligned with its new food mission in order to deliver their new value proposition to their patients, visitors and staff. The value inconsistency pattern surfaced frequently across the cases. In some examples, the entrepreneurs detected and adjusted for the value inconsistency on their own, and in other examples it was a stakeholder who prompted the firm to respond to the value inconsistency. Table 6.4 shares additional examples of value inconsistencies.

**Table 6.4 Additional examples of value inconsistencies**

| Example | Researcher commentary |
|---|---|
| A health and wellbeing provider was surprised and concerned by the scores that some food products were receiving in an early version of their product, and pressed Venture A to be more careful with their food scoring algorithm:<br>*"They found a lot of very small inconsistencies, or they found some scoring they didn't understand. Some products without nutrition facts that were scoring higher than products with nutrition facts and [they were] trying to really understand how we were doing what we were doing, and they poked a lot of holes in the way we were doing things, because we had been going very fast, and not necessarily covering everything."*—Employee A4 | This example demonstrates that Venture A has received pushback with respect to how they score food products. It highlights the difficulty that stems from different opinions about what qualifies as healthy food. |
| Venture B pre-empted a value inconsistency that might have been suspected due to their collaboration with large food manufacturers (which have the power to produce and market unhealthy food product). Venture B was clear about their resolution to put the consumer first and stressed their careful approach leveraging consumer data in value propositions to large food manufacturers:<br>*"We can analyse [the food manufacturers'] products and tell them in advance which products are not going to appeal to certain categories and then how to reformulate those products so that they do appeal to those categories. It may be a matter of adding more fibre or protein, removing the salt. We can also show them that there are other products on the shelf or in the catalogue that are better than theirs for these target consumers and if they use apps like ours those consumers are going to find those competing products...They have to get with the program, basically"*—Executive B | This example suggests that Venture B developed a clear protocol about how they would limit data sales and collaboration with large food companies to activities that put the consumer interest first. This protocol helped avoid value inconsistencies. |
| The director of Venture D expressed wariness about the consistent and complete alignment of local food with healthy food.<br>*"Part of [Venture D] is to get healthier food to the institutions and the consumers, which is not to say that local food is always the healthiest food...*<br>*I do think that, and this is not necessarily worn out by proof, but when you start making a commitment to local food you more often are making a commitment to whole food and less processed food, and so that brings a higher health return. But this rutabaga versus that rutabaga—I haven't seen anything that suggests it is more healthy because it's local...we do realise that local is sort of a proxy for a lot of other characteristics...for some reason local is perceived to mean sustainably grown and fair."*—Director D | This example shows that Venture D is aware that local food is not necessarily healthier than the alternative. This suggests that promoting local food might sometimes be inconsistent with promoting healthy food. |
| Venture F has a purpose to support a local, sustainable food economy, and in doing that they support local food startups through their incubator programme. Some of the startups are motivated to source their ingredients locally, but not all. A director at Venture F explained that they do also serve the startups that have chosen not to source locally. The researcher interpreted that that this more relaxed view on how their startup clients do their sourcing is related to the incubator programme's source of funding from federal grants. | This example demonstrates how Venture F has relaxed their views on sustainable, local ingredient sourcing within their incubation work. It suggests a slight inconsistency between the ethos of Venture F and the ethos of its funders |

**Insight 8: HFV entrepreneurs often demonstrate a willingness to continuously examine and accept specific feedback about how their business activities align with their core purpose.**

**Insight 9: HFV entrepreneurs often find that labelling food with descriptors like 'healthy', 'sustainable' or 'local' provokes different interpretations and consequently a number of strong expectations from HFV stakeholders.**

**Researcher commentary: The researcher believes that HFVs should use caution in how they pair words like 'healthy' and 'sustainable' with their offering.**

The insights in this section are also related to the difficulty that exists in measuring ill-defined concepts like health and sustainability. The next section discusses measurement in greater detail.

### 6.3.3 Value immeasurability

Value immeasurability is defined as an instance in which a value form that is critical to the business model is not being adequately measured.

> **Example shared in Chapter 5**
>
> Venture A pitches a value proposition to their clients that they can help lower their client's health care costs. However, Venture A measures the shift in the food shopping behaviour of each client's users. A user's shopping trips scores are reported as the average of all the food item scores (higher scores indicating healthier items). A shift from an average shopping trip score of 60 in the first half of the year to a score of 70 in the second half of the year suggests that a user has increased the healthiness of their food purchases. Venture A is aware that some of their client payers are comfortable making the stretch from healthy food to health care savings, but they also realise that some of their client payers want to see measurements that are better indicators of health care savings. Venture A thought about solving this problem by integrating with devices and services that provide health data, such as heart rate, body mass index and blood pressure.

The example shared here illustrates how a value immeasurability—in this case the prior failure of Venture A to measure health care savings and health indicators—led the

venture to innovate an aspect of its business model. The value forms that were presented in Table 6.1 earlier in the chapter—expression of identity, pleasure, fulfilment, connection to place, connection to community, social inclusion—are other examples of value forms that are difficult to measure and quantify. Even though it is difficult to measure such value forms, the case study data evidenced that the HFV entrepreneurs often strive to obtain better measurements of these less tangible value forms. Table 6.5 shares some examples of interview quotations in which the HFV entrepreneurs discuss such measurements.

**Table 6.5 Examples of entrepreneurs discussing measurement**

| Example | Researcher commentary |
|---|---|
| "*The assumptions were: could we track people's behaviour in grocery and change their behaviour? Those were the first two. Would that behaviour change result in savings is still one we haven't been able to quantify yet, because the time it takes to quantify that we are making serious behaviour change that results in biochemistry change and cost savings is an 18-24 month process. So we try to develop measurements at every step, so short, medium and long term, and now we are putting in those medium term measurements which are more biometric type stuff.*"—Executive A1 | This quotation evidences that the venture was aware of the mismatch between their measurements and their value proposition to the client payers, and is working to improve their measurements to better match their value proposition |
| "*So it was based on a little bit of user feedback and at the same time going to the employers and asking them how much money they already spend on health and wellness. On average employers spend $560 per year/per employee in incentives and based on that you can [redeploy] this money for stuff that you can actually measure and not just pretend that they are running on the treadmill.*"—Employee A4 | This quotation demonstrates how the venture saw the lack of measurability of the ubiquitous employee gym benefit an opportunity for innovation |
| "*We've looked at the example of schools in the summer with all of these big commercial kitchens...that's when the food is being grown...can people come in and process their garden vegetable in the commercial kitchen and do it collectively and there are some examples of where that's happened...The question is how much food does it end up, if we are trying to, I mean what's the measure of does it work? Is it allowing people to cook together and cook healthy food together?*"—Director D | In this quotation, the entrepreneur acknowledged the role of measurement in defining the success of a project |

| Example | Researcher commentary |
|---|---|
| In response to the researcher's question about the evidence that their venture benefits farmers, the director explained:<br>*"We actually have a metrics project. Its one of the questions we are looking at and we are actually developing a survey trying to distribute really widely in [our region] to producers this winter that is really trying to get at that. Because in some ways it's the whole impetus for bringing about this whole initiative. This initiative really came out of a report that the ag commissioner did with 6 states back in 2008-2009 that was looking at strategies to keep farmland in farming—to keep farmland viable. And they look at institutional markets as one market that could be expanded for local producers to do that. But I think that the really legitimate question is when and how and under what conditions do institutional sales really benefit producers. And anecdotally we have some answers that if you can grow a certain set of crops that institutions want and the process, packaging, and delivery logistics are streamlined enough that, even if you are getting a lower price per case, then you are saving money overall as opposed to growing a diversified set of crops and driving them to a farm stand or CSA or co-op in smaller quantities"*-Director D | This quotation shows that it was not easy to measure how partnerships between farmers and institutions ultimately impact farmers, but even so, the venture sought to measure it |
| When asked if their venture measures any changes in attitude with respect to the food amongst the hospital's consumers, a Venture E director replied:<br>"*I wish we had a better system for measuring those changes. I don't think that we do a good job of it. We have some—like we used to have a system in place where people could text their opinions about the food to retail. I don't know if we are still doing it or not to be honest. We are not doing it at the café that I work near, but they might be doing it in the other café."*-Director E | This quotation suggests the director's desire to better measure less tangible changes. |
| *"I would love it to be that you click on it and you buy it, but right now we don't have that. We don't close the loop. Right now it is that I recommend something, you make the decision as to whether or not it actually ends up in your basket. Now that is getting easier with things like online shopping. You really could click it and add it to your home delivery on [an e-commerce retailer], but we haven't done that yet."*—Executive B | This quotation demonstrates the entrepreneur's desire to 'close the loop' and measure the effectiveness of recommendations. |

| Example | Researcher commentary |
|---|---|
| *"So the outcomes were along a spectrum: for the elderly, the public health outcomes were to stabilise their diets to help them stay out of the hospitals, youth was to help them learn to eat a healthy diet and become advocates in their own community and maybe that becomes a lifelong practice. We followed the first group of kids. So many of them have made life choices based upon that experience. Some of them are going into ag school. They are doing something. They were very touched by that. Now the thing that I didn't have a lot of money for which is hugely expensive is evaluation. And it breaks my heart but I was flying, I was like, 'Let's just get it,' and now the program is heralded, people are talking about it. So maybe, would it have been great to have evaluation data, yea. But I didn't have an extra $250,000. I had $30,000 to run one kids program along a spectrum. So sometimes innovators find themselves in that situation, and its hard, and academics when they think about innovation always want to do a study and you're like 'wait a minute'. That imposes a regimen on an approach where you don't have a lot of flexibility to be really creative, and then when the study is finished, what do you have at the end? It's over."*—Director C | This quotation suggests that the entrepreneur attempted to measure outcomes (e.g., "we followed the first group of kids") and wanted to measure outcomes (e.g., "it breaks my heart"). The entrepreneur raises an interesting point about the awkwardness and constraints that measurements sometimes impose |

**Insight 10: HFV entrepreneurs often demonstrate a desire to measure the intended impact of their value propositions.**

In addition to the insights that have been offered, there are other themes that surfaced across the case studies with respect to measurement. There is little consensus on how the less tangible value forms should be measured. The cases demonstrate that the entrepreneurs often figure out creative ways to obtain direct measurements or proxies. The researcher wonders however if anyone has invented a systematic process to better understand how to measure the immeasurable. Kaplan and Norton suggest in their Balanced Scorecard approach that practitioners identify the less tangible objectives within their business and their corresponding measures, however their work assumes that it is always straightforward to understand how something can be measured (Kaplan & Norton, 2004). The cases suggest that sometimes the value proposition measurements are less about rigorous measurement and more about a measurement that is good enough for the concerned stakeholder.

The Oxford English Dictionary defines immeasurable as "not measurable; that cannot be measured; immense" ("immeasurable, adj.," n.d.). In some instances that are identified as value immeasurability, it may be that something is extremely difficult to measure. In other cases, it may be that measurements have been neglected. The researcher intends that value immeasurability be used to capture both instances, despite the Oxford English Dictionary meaning of the word.

### 6.3.4 Value underperformance summary

The previous subsections have demonstrated how the three forms of value underperformance were used to analyse the cases and uncover insights. The analysis has revealed overlaps amongst the three forms. In some instances, it might have been possible to use more than one form of value underperformance to describe the situation. The researcher did not intend for the value underperformances to be mutually exclusive, but rather to more easily identify the situations that were observed to influence business model innovation.

The researcher recognises that value inconsistency has been used to describe a wide range of inconsistencies. The researcher has defined value inconsistency as an instance in which a value form within the business model is inconsistent or misaligned with another value form or component. In less academic terms, value inconsistency has been understood as a situation in the business model in which *things just do not feel quite right.* The researcher recognises that like the value uncaptured language, the value underperformance language will likely evolve as it is researched further.

## 6.4 Negative Value Diagnostics beyond the case studies

By studying the HFV data through the Business Model Blossom and the Negative Value Diagnostics toolset, the researcher has been able to cut through the complexity of the value forms embedded in the HFVs and generate a set of insights. The toolset brings order to the complexity, however the researcher recognises that the order does not feel perfect. The researcher intends to continue researching the Business Model Blossom and Negative Value Diagnostics toolset beyond this thesis. Implementing the toolset in workshop settings and other industrial contexts will allow the researcher to refine it further. Chapter 7 will expand on this specific opportunity for future research.

### 6.5 The significance of the insights

This final section examines how each of the 10 insights that have been presented in this chapter contributes to the academic literature on business models.

**Insight 1: HFV entrepreneurs often recognise that the essentiality of food, and thus its regular use, renders it an important product for creating social impact.**

The researcher has been unable to find an explicit acknowledgement of the impact-creating power that stems from the regular consumption of food in the body of literature on business models. Yunus et al. come closest when they present the mission of a social business model case study and explain one of the impacts created:

> "Grameen Danone's mission statement is very explicit: '*to bring daily healthy nutrition to low income, nutritionally deprived populations in Bangladesh and alleviate poverty through the implementation of a unique proximity business model*'... Shoktidoi yoghourt naturally contains calcium and proteins, and is expected to have a strong nutritional impact on children aged 3 to 15 who eat it on a regular basis."

While the text demonstrates that the Grameen Danone venture is creating impact on a daily basis, the authors do not clearly draw out the link that the strength of the impact is connected to food's regular consumption.

**Insight 2: HFV entrepreneurs often recognise the ability that food and foodways hold to deliver multiple value forms.**

The business model literature that intersects with food has demonstrated that food and foodways are capable of delivering multiple value forms. Pokorná et al. use Osterwalder et al.'s Value Proposition Canvas to identify many types of benefits (e.g., functional, emotional, social) that are created for Farmer's Market customers (Pokorná et al., 2015). Den Ouden analyses the many value flows within the business model of a healthy food service using the Value Flow Model (den Ouden, 2012).

The business model literature evidences the ability of food to deliver multiple value forms, however the business model literature has not yet emphasised the role that food holds in delivering those value forms. The extant literature presents the value forms generated at the higher level of the business model.

Insight 2 builds upon the insights already embedded in the literature, clarifying that food and foodways represent mechanisms to deliver multiple value forms, and suggesting that HFV entrepreneurs have recognised this ability.

**Insight 3: HFV entrepreneurs often leverage the multiplicity of food's value forms in order to design business models that create social impact.**

As demonstrated above, the business model literature shares examples of food-related business models that generate multiple value forms and create social impact (den Ouden, 2012; Pokorná et al., 2015; Yunus et al., 2010).

Yet, the literature does not explicitly point out that the entrepreneurs behind the business models have created that social impact by leveraging food's multiple value forms. This specific insight highlights that entrepreneurs can be purposeful in the way they dissect the value forms of food and utilise the various value forms to create social impact.

**Insight 4: HFV entrepreneurs often experience difficulties in communicating and handling the multiplicity of food's value forms.**

In their discussion of the Value Mapping tool, Bocken et al. suggest the difficulty of communicating and handling business models with value propositions to multiple stakeholders (Bocken et al., 2013). Overcoming this difficulty is part of the motivation behind the Value Mapping tool's development (Bocken et al., 2013).

This particular insight about the multiplicity of food's value forms goes beyond that more general insight about the difficulty of multiple value propositions, and highlights the difficulty of the many value forms stemming from food. The contribution of this

insight lies in its context specificity and its focus on value forms as opposed to value propositions.

**Insight 5: Food and foodways offer value forms that are not always leveraged in the conventional business models that feature food.**

The business model literature and strategic management literature talk about leveraging assets and resources (e.g., Euchner & Ganguly, 2014; Linder & Cantrell, 2000; Yunus et al., 2010), however the idea of leveraging value forms is less common. The nearest example is Allee's description of *leveraging value* in a discussion about analysing the value network (Allee, 2008). While Allee seemingly articulates this idea of leveraging the value form, Allee's observation is broadly concerned. Insight 5 builds on Allee's contribution, and its uniqueness is that it narrows in on specific value forms that arise within the context of food.

**Insight 6: HFV entrepreneurs often leverage the value forms of food that conventional business models tend to ignore.**

The closest insights that the author has found in the literature come from the consumer research literature that analyses why consumers chose certain foods (Botonaki, Polymeros, Tsakiridou, & Mattas, 2006) and the marketing literature that identifies the most important attributes to consider when promoting certain foods (Pearson & Henryks, 2008). The researcher considers these closest because of their grounding in business studies and their suggestion to approach food from the perspective of the benefits it delivers. The parentheses hold examples of studies into organic foods. Pearson and Henryks encourage marketeers to focus on the health, quality and environment attributes of organics (Pearson & Henryks, 2008). These arguably are examples of attributes that conventional food businesses, which often focus on price, convenience and quantity, tend to overlook.

Insight 6 builds on such insights, however it suggests that the HFV entrepreneurs find ways to deliberately leverage those specific value forms in their business models. For example, a HFV entrepreneur might leverage the health value of food to engage health

care collaborators into the model. Insight 6 integrates insights about food's underutilised value forms into the business model perspective.

**Insight 7: HFV stakeholders sometimes take offense to an aspect of a value proposition, which suggests the risks of the multiplicity of value forms related to food / foodways for the HFV, and also suggests a link to the very personal nature of our relationship with food.**

The researcher has come across insights in the literature related to the value richness of food. For example, the excerpt from Jones at the start of this chapter on the symbolism of food suggests its value richness and our highly personal relationship with it. However, the researcher has not come across such an insight contextualized for entrepreneurs pursuing food ventures. This is an important insight for HFV entrepreneurs, because not understanding the threat posed by food's many value forms and people's highly personal preferences for those value forms can be detrimental to a food business.

**Insight 8: HFV entrepreneurs often demonstrate a willingness to continuously examine and accept specific feedback about how their business activities align with their core purpose.**

Management literature concepts such as the "lean startup" (Blank, 2013) and the "learning organisation" (Senge, 2006) stress that learning from feedback has an important application in operating a business. While the concept of learning from feedback is not new, the insight specifying that the type of feedback that the entrepreneurs seek relates to the alignment of their business' activities with its core purpose is new.

**Insight 9: HFV entrepreneurs often find that labelling food with descriptors like 'healthy', 'sustainable' or 'local' provokes different interpretations and consequently a number of strong expectations from HFV stakeholders.**

The social sciences literature does offer the insight that descriptors of food, like healthy and local, are highly interpretive (Povey, Conner, Sparks, James, & Shepherd, 1998;

Smithers, Lamarche, & Joseph, 2008). However, Insight 9 emphasises the implications that the diverse interpretations have for the HFV entrepreneurs and stakeholders. This insight contextualises the highly interpretative nature of these food descriptors within the HFV.

**Insight 10: HFV entrepreneurs often demonstrate a desire to measure the intended impact of their value propositions.**

There is literature about measuring intangible assets (Allee, 2008; Kaplan & Norton, 2004); however the researcher has not come across anything in the literature highlighting that HFV entrepreneurs often demonstrate an interest in measuring their value proposition, especially those value propositions that are less tangible (e.g., overall health improvement). It might not be possible to measure all of their value propositions at present, but they still search for ways to do it. This insight implies that HFV entrepreneurs hold themselves accountable.

# Chapter 7

## 7. Conclusions and discussion

This chapter summarises the contribution of the insights and tools that have been synthesised over the course of the thesis. The summary acknowledges how the new insights and tools have met the research objectives and answered the specific research questions. The chapter briefly discusses a range of related topics that present opportunities for future research. The chapter also returns to the discussion of the strengths and weaknesses of the research. The chapter closes with two topics of prime significance to the research: 1) why the concept of value is important for innovation, and 2) why healthy food business models are so special.

### 7.1 The contributions of the insights and tools

The subsequent sections clarify the contribution of the healthy food venture insights and the two tools—1) the Business Model Blossom and 2) the Negative Value Diagnostics. These insights and tools have emerged from the study of 20 cases, which allowed the researcher to observe and interact with 145 practitioners who supported those 20 case study ventures. The rich qualitative data that was collected across the 20 cases both evidenced the insights and informed the development of the 2 tools.

This research has met the researcher's predefined research objectives and answered the research questions. The researcher outlined three objectives: 1) to contribute to knowledge about healthy food interventions within the business model context, 2) to contribute to practice by offering practitioners tools that help them to operate successful HFVs, and 3) to learn what it means to be a good researcher. Sections 7.1.1 and 7.1.2 emphasise how the research has made a contribution to knowledge and practice. The researcher will reflect on the third research objective in Section 7.3. The researcher has pursued and answered the following two research questions:

RQ1: What are the challenges faced by HFVs?
RQ2: How do HFVs innovate their business models?

RQ1 has been answered with the many challenges that have been uncovered throughout the thesis. Chapter 4 listed specific challenges faced by the healthy food ventures. Chapter 6 offered insights about healthy food venture challenges and

opportunities that were evidenced across the cases. The challenges shared in Chapter 4 and the 10 insights answer RQ1.

RQ2 has been answered with the toolset of the Business Model Blossom and the Negative Value Diagnostics. The researcher collected data that illustrated how healthy food ventures innovated their business models, and this data ultimately informed the generation of the value underperformances and their combination with the value uncaptured forms to create the 7 NVDs. The Business Model Blossom enabled the researcher to map out the business models of healthy food ventures and recognise the NVDs as triggers for business model innovation. The BMB and NVDs provide a template for mapping out the business model and a theoretical explanation of business model innovation within the context of healthy food ventures, and thus answer RQ2.

### 7.1.1 The contribution of the 10 insights to knowledge and practice

This research has generated 10 insights that are relevant for healthy food ventures. The literature review revealed that while the literature calls upon innovators to design new business models to transform food systems and encourage healthy food consumption, it offers little guidance about how to achieve this. There is also little academic exploration of HFVs from the business model perspective. While some of the insights may come across as obvious, the researcher has been unable to find another collection of insights in the academic literature that apply across such a diverse set of HFVs. As demonstrated in the Chapter 2 literature review, the insights in the overlap of the healthy food and business model literatures that could be considered useful for HFV entrepreneurs and innovators are often too narrowly focused (e.g., Vander Wekken et al.'s insights that are specifically relevant for vending machine suppliers). The insights presented in this thesis apply across a diverse set of healthy food ventures.

The 10 insights evidence the utility of this thesis' structured approach to thinking about business model innovation. The Business Model Blossom and Negative Value Diagnostics were the tools that enabled the researcher to unlock the 10 insights. The researcher has presented the insights and tools on multiple occasions in order to obtain feedback about the research. The responses to the presentations suggest that more important than the insights themselves is their ability to illustrate the utility of the toolset. Both practitioners and academics have expressed excitement about the business model innovation tools.

Nevertheless, the 10 insights make a contribution to knowledge and practice. In summary, the insights make a contribution to knowledge by clarifying and adding to the current literature that intersects with HFVs, as demonstrated in Section 6.5 of the previous chapter. They are clear findings that have been drawn across a diverse set of HFVs. In addition, the collective presentation of the insights integrates the fragmented knowledge on the subject. Regarding the contribution to practice, the 10 insights offer practitioners a concise overview of opportunities and challenges that have been observed across diverse HFVs.

### 7.1.2 The contribution of the BMB and NVDs to knowledge and practice

Chapters 5 and 6 demonstrated how the Business Model Blossom can be used to map out the business model of the HFV and how the Negative Value Diagnostics can be used to identify potential opportunities for business model innovation. The BMB and NVDs bring more structured thinking to the business model and the process of business model innovation. In terms of the business model lifecycle aid that was proposed in Section 5.1.3, the BMB and the NVDs relate to each other as shown in Figure 7.1.

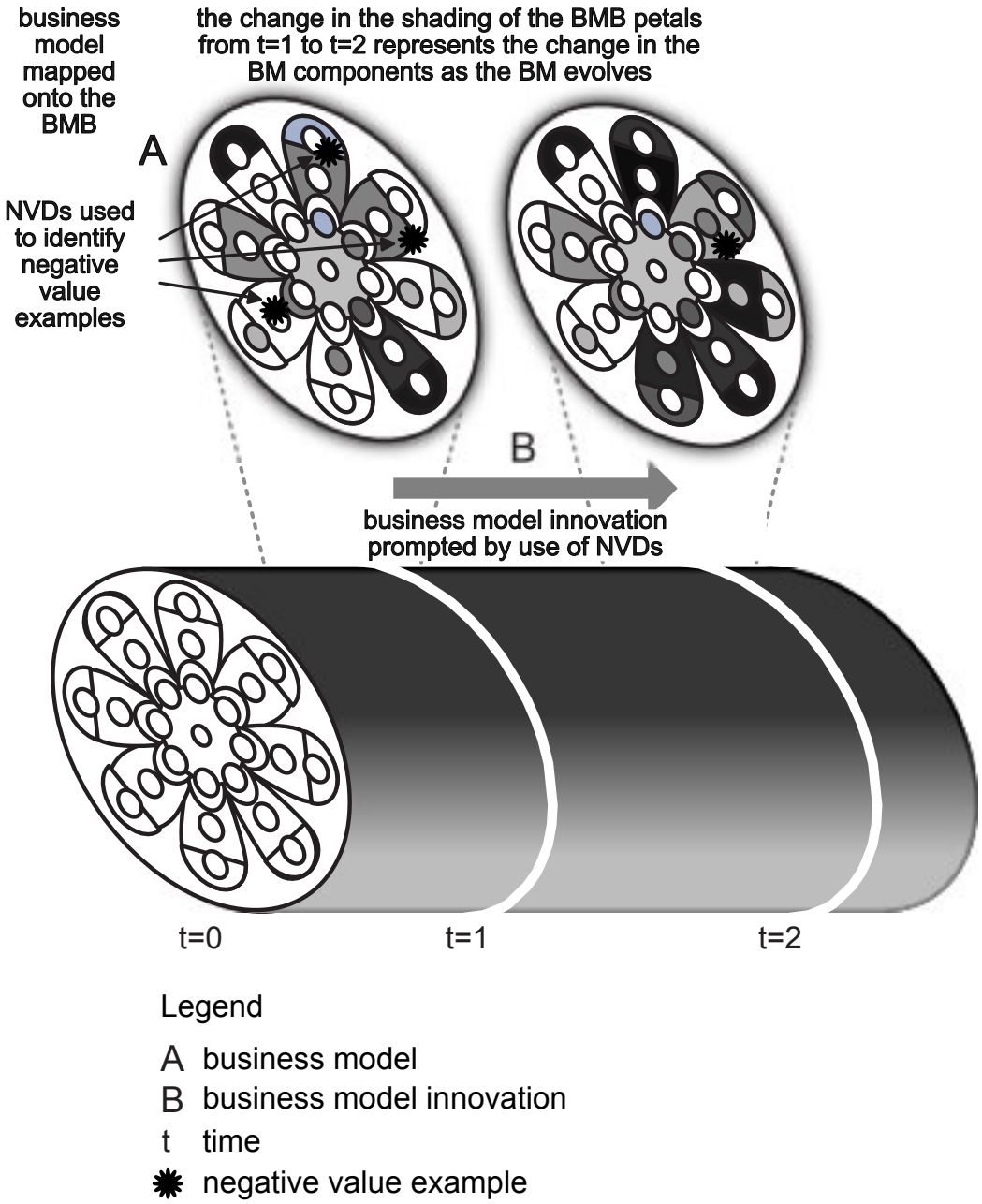



**Figure 7.1 Role of BMB and NVDs in business model lifecycle**

The researcher proposes that the BMB and the NVDs not only add structure to the concepts of the BM and BMI, but also combine to offer a new theory of business model innovation. In their extensive review of the BMI literature, Foss and Saebi suggest that academic scholars have yet to offer a true theory of business model innovation (Foss & Saebi, 2016). Yang et al. published their theory of sustainable business model innovation at roughly the same time of Foss and Saebi's BMI review. The timing of the two papers' publishing offers one explanation for how Foss and Saebi overlooked Yang et al.'s theoretical BMI contribution. However, Yang et al. frame their value uncaptured perspective rather narrowly—as a theory of *sustainable* business

model innovation. In addition, Yang et al. offer the framework of 'value proposition', 'value creation and delivery' and 'value capture' as the business model framework upon which to innovate the new business model. As suggested throughout the thesis, the researcher has observed this three-construct framework to be overly simplistic and ambiguous.

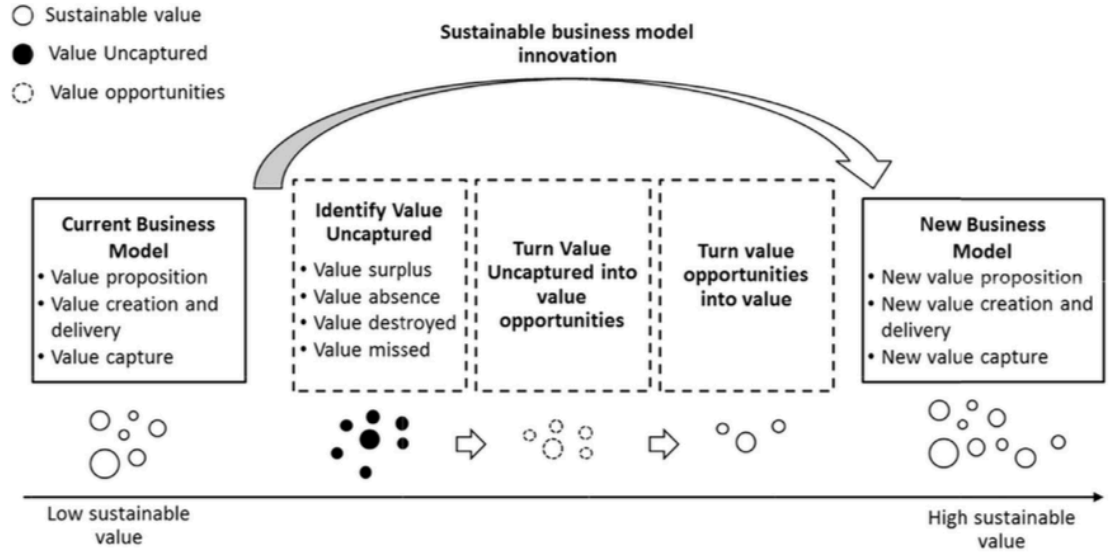



**Figure 7.2 Framework of using value uncaptured for SusBM innovation**
from (Yang et al., 2017)

While the BMB and NVDs have been developed within the narrow research context of healthy food ventures, the researcher suspects that the toolset offers a theory of business model innovation that is transferrable across a wide range of contexts. The researcher recognizes however that future research is required to rigorously test the use of the NVDs alongside the BMB as a generic theory of business model innovation. This research has demonstrated that the NVDs in combination with the BMB offer a theory that explains business model innovation in the context of healthy food ventures.

Each of the two tools contributes to knowledge and practice. The BMB clarifies the ambiguity that surrounds the business model concept in the academic literature. The 3 value underperformances build on Yang et al.'s notion of the BMI significance of negative value identification. The 3 value underperformances combine with Yang et al.'s 4 value uncaptured forms to establish the 7 NVDs. In summary, the BMB and NVDs contribute to knowledge by offering a theory that explains business model innovation within the context of healthy food ventures.

Regarding the contribution to practice, the BMB and NVDs offer practitioners tools that can be used for the purpose of analysing and innovating the business model of their healthy food venture.

#### 7.1.2.1 Clarifying the BMB's contribution

The BMB's contribution can be further clarified by comparing it to the Value Mapping tool, as it is the nearest framework in the literature. The two frameworks do have many similarities; the reader might even question the novelty of the Business Model Blossom given their similarities. The researcher decided to adopt a visual representation of the firm's ecosystem of stakeholders similar to the Value Mapping tool's: each stakeholder has their own respective section where its exchange of value forms with the focal firm is illustrated. There are similarities in the underlying logic of the two frameworks. Both frameworks encourage their users to analyse the value that the business model delivers to each of its stakeholders.

The reader might wonder why the researcher did not begin the analysis with the Value Mapping tool instead of the Chapter 4 analytical lens. The researcher observed the use of the Value Mapping tool in workshops on multiple occasions, many of which were workshops with HFV cases. On the occasions in which social and/or environmental objectives were already embedded in the entrepreneurs' thinking, the most appropriate use of the Value Mapping tool and key takeaways were unclear. For example, upon the introduction to the Value Mapping tool at a meeting of Venture J stakeholders, one stakeholder remarked (and in effect dismissed the tool as being useful for them):"*But [the founder] has already embedded this environmental and social sustainability thinking into the model.*" On another occasion, the Venture I founder who self-identified as an *ecopreneur* and had just used the Value Mapping tool to ideate Venture I's business model was unclear as to whether or not it was okay to describe more than one value proposition in Venture I's business model.

The Business Model Blossom assumes that social and/or environmental objectives are embedded within the venture. However, the flexible treatment of the BMB's stakeholder component allows a framework user to return to the Value Mapping tool's explicit acknowledgement of the environment and society as stakeholders. Unlike the Value Mapping tool, the BMB explicitly uses the term 'value proposition.' In this way, there is no doubt that the BMB encourages multiple value propositions. Also novel to the BMB is the complementary language of value underperformances. It offers

framework users a way to identify the value propositions that require more thought (e.g., value complexity). The value underperformance language also helps to identify value flows that are difficult to measure or inconsistent with some component of the business model.

#### 7.1.2.2 Clarifying the NVDs' contribution

The NVDs' contribution can be further clarified by juxtaposing the NVDs to an alternative innovation approach. The thesis juxtaposed the BMB to the Business Model Canvas throughout the new framework's development in Chapter 5, however their complementary innovation approaches have not yet been discussed. With respect to the Business Model Canvas, Osterwalder and Pigneur identify four sources of business model innovation:

- "**Resource-driven** innovations originate from an organisation's existing infrastructure or partnerships to expand or transform the business model"
- "**Offer-driven** innovations create new value propositions that affect other business model building blocks"
- "**Customer-driven** innovations are based on customer needs, facilitated access, or increased convenience. Like all innovations emerging from a single epicentre, they affect other business model building blocks"
- **Finance-driven** innovations are "innovations driven by new revenue streams, pricing mechanisms, or reduced cost structures that affect other business model building blocks"

  (Osterwalder & Pigneur, 2010)

Osterwalder and Pigneur also write, "change often originates in areas identified through a SWOT analysis: an investigation of a business model's strengths, weaknesses, opportunities, and threats" (Osterwalder & Pigneur, 2010).

However, the SWOT approach does not encourage the user to dig deeply into the complexity of the value forms that might accompany a particular offering, as we have seen in the context of food. Osterwalder and Pigneur ultimately offer their framework user a long checklist of common strengths, weaknesses, opportunities and threats to search for across the 9 BMC building blocks (Osterwalder & Pigneur, 2010). The Negative Value Diagnostics language (4 value uncaptured forms and 3 value underperformances) represents a novel alternative to Osterwalder and Pigneur's business model-specific SWOT checklist. The NVDs offer its user a new way of thinking

about business model innovation. It encourages an approach to BMI that deeply considers the value forms that exist within a business model.

### 7.1.3 The healthy food venture context

This research has been conducted within a specific context, and amongst a niche subset of ventures operating within that context. As described in the case study insert, the case studies represent young ventures with a mission to encourage healthy food consumption. The majority of the studied cases were small ventures that had been in existence for 5 years or fewer at the time of the primary source data collection. The researcher has adopted a definition of venture that encompasses a range of organisational structures (e.g., for profit and non profit) and also includes initiatives within bigger parent organisations (e.g., see Venture E description on page 104). The insights and tools that have emerged from this research are relevant to the context in which the research was conducted; they are relevant for healthy food ventures.

While the researcher has suggested that the Business Model Blossom and Negative Value Diagnostics could be useful to ventures in other contexts, this remains to be seen. The researcher recognizes that the research presented in this thesis can only be interpreted to offer a contribution to knowledge in the niche subject area of healthy food business models. The Business Model Blossom offers a number of opportunities for future research, as will be presented in the next section.

## 7.2 Future research opportunities

The researcher has identified several opportunities for future research during the current research. The following subsections expand on these opportunities.

### 7.2.1 Implementing the Business Model Blossom in ventures

Not only can the Business Model Blossom be implemented and evaluated as a research framework within other contexts (i.e., an analytical tool that the researcher can use in other contexts), but it can also be implemented as an intervention for ventures that are designing, managing and innovating their business models. The researcher has suggested that the Business Model Blossom could be used to help early stage healthy food ventures design and communicate their business models. It was designed with an eye for the eventual implementation and refinement into a tool that is helpful for healthy food ventures, a vision that likely influenced its design. For example,

the researcher observed the effectiveness of a fun facilitation style when working with other innovation management tools. This observation served as further reason to embrace the flower shape. Time constraints prevented the researcher from implementing the BMB with HFV practitioners though. The researcher intends to carry out this implementation research as future work.

### 7.2.2 Researching the language we use in innovation

The researcher has observed the important role that language plays in business model innovation environments. The Value Mapping workshops have demonstrated the utility of the tool's value captured/uncaptured language. While the researcher has observed the tool's language to be important, the researcher wonders if we might gain further understanding about the language used in business model innovation environments by designing more systematic studies. Frameworks such as the Value Mapping tool and the Business Model Blossom would support such studies. For example, what would happen if we translated the language in the Value Mapping tool (e.g., win-win for value captured; loss for value destroyed; missed goal for value missed; overabundance for value surplus; yearning for value absence)? The researcher envisions an opportunity for future research that compares the value-based business model language to languages that use alternative terminology.

### 7.2.3 Business model conception versus innovation

Another area for future investigation is the difference between the process of innovating a new business model and the process of innovating an existing business model. Throughout the discussion, the former will be referred to as business model conception and the latter as business model innovation. The extant literature is unclear on this issue. The researcher has demonstrated how the Negative Value Diagnostics are a potential stimulus for business model innovation, and has demonstrated their role in both business model conception and business model innovation. However the researcher suspects that there are differences between the two processes.

The Negative Value Diagnostics offer researchers a tool to identify the differences between business model conception and business model innovation. The researcher examined the business model conception of the cases through the lens of value uncaptured. The researcher did not attempt to analyse business model conception using the value underperformance subset of the Negative Value Diagnostics. There is

opportunity for future work that takes a close look at the differences between the potentially distinct processes of business model conception and business model innovation. The researcher proposes that the 7 Negative Value Diagnostics offer promising support for such research.

### 7.2.4 A business model innovation

This thesis has treated business model innovation as a process. However the researcher cannot ignore that there is an on-going academic discussion about *a business model innovation* (i.e., the outcome of innovating a business model). Scholars debate about what exactly constitutes *a business model innovation* (Geissdoerfer et al., 2018). Are there some situations in which a product innovation is also *a business model innovation* and other situations in which that is not the case? There is no consensus on what counts as *a business model innovation*. The researcher has considered this question to be outside of the scope of this research and has largely remained unconcerned with the definition of business model innovation in this sense of the term. However, a clear definition of *a business model innovation* would enable us to challenge the idea espoused by some scholars that there are set types of business model innovations (e.g., Weill, Malone, D'Urso, Herman, & Woerner, 2005).

### 7.2.5 The scope of the business model

The thesis has evidenced the growing scope of the definitions of both the business model and business model innovation. Scholars suggest that the business model can address an increasing number of aspects related to running a business. The business model has grown to incorporate aspects such as accounting, operations, strategy, governance and management (Schiuma & Lerro, 2017). The researcher has often contemplated how we bound the domain of the business model.

For example, what level of accounting detail is appropriate and useful to include in the business model framework? Scholars have taken different approaches to integrate accounting of value capture (and most often financial accounting) into their frameworks. Table 7.1 demonstrates examples of various approaches that scholars have used to incorporate value capture accounting into their business model frameworks.

**Table 7.1 Accounting approaches in mainstream BM frameworks**

| Framework | Accounting approach |
|---|---|
| Business Model Canvas | Revenue streams, Cost structure |
| Johnson et al.'s Business Model | Profit formula |
| Yunus et al.'s Social Business Model | Economic profit, social profit |

The researcher has designed the Business Model Blossom to support value capture accounting considerations by including the value return, value recovery and value delivery components. However the researcher acknowledges that for the Business Model Blossom to fully support a detailed accounting process, it would be necessary to introduce a layer of questions on top of the business model components. This raises the question: to what extent should a business model framework account for the value forms captured by a given business model? The researcher proposes the need for further research into the most useful ways that the various aspects, such as value captured accounting, are incorporated into the business model.

## 7.3 Reflecting on the strengths and weaknesses of the research

The strengths and weaknesses of the research are readdressed now that the research process and outcomes have been fully presented. One strength of the research is the quantity and richness of data. The researcher collected data from a number of different sources, which included in-depth interviewing with 35 practitioners contributing to healthy food ventures. As a result, the researcher has been able to share 20 case studies with the reader. Described in greater detail in Chapter 3, the approach enabled the researcher to collect and present rich descriptions of the innovation processes experienced by healthy food ventures. It also led to the emergence of a new toolset—the Business Model Blossom and the Negative Value Diagnostics—which consequently permitted the researcher to draw out insights about healthy food business models.

Yet all research comes with its weaknesses. One weakness of this research is the lack of quantitative data. At the outset of the research, the researcher intended to collect more quantitative data about the impact of the ventures. For example, the researcher hoped to be able to quantify health impacts and health care savings of these healthy food ventures, but the researcher found that the data either did not exist or was

inaccessible. In an interview, one entrepreneur cautioned the researcher about the difficulty of studying food-related ventures that aim to make health impacts:

> "*We are only now starting to see new models tested. They are emerging now. So you know that you don't have anything really mature to look at yet*"—Director C

After studying the healthy food ventures, the researcher now understands why it would have been infeasible to understand the health care savings achieved by the ventures.

The researcher initially perceived the closeness of the Business Model Blossom to the Value Mapping tool to be another weakness of the research. At the start of the research, the researcher anticipated that the data would lead to the invention of a completely original standalone tool. However the researcher entered into this research as a novice in the innovation management and sustainability fields. The researcher was naïve about the process and expectations of exploratory qualitative research. The researcher now appreciates that the Business Model Blossom and the value underperformance language are indeed unique and meaningful contributions. Their similarities to the Value Mapping tool and value uncaptured language might even render them more impactful. Only future research will tell.

Some scholars consider the replicability of research as a criterion of the validity of the research. Yet scholars that call for replicability align with or edge towards positivism, which is different from the strong interpretivist worldview held by the researcher. The researcher acknowledges that there have been a great number of variables that have influenced these findings. Even though another researcher would not have been able to start with the same research plan and replicate the findings of this research, it is not to say the research is invalid. The researcher has presented the research in a way that the methods can be replicated. This research approach has allowed for meaningful insights, and while some scholars might argue that the insights have been generated subjectively, the researcher has been transparent about how the research process unfolded.

At the start of this research, the researcher set out the objective of learning what it means to be a good researcher. Scholars have written generously about this topic. Booth et al. communicate the important skills of framing research questions and considering the research audience while conducting any piece of research (Booth, Colomb, & Williams, 2009). Miles et al. advise researchers to be honest about their research's strengths and weaknesses; be creative—limiting worries about "doing it right"; be open to experiential learning; and establish methods for reflecting both alone

and with a peer (Miles et al., 2013). The researcher has heeded this advice to produce the piece of research presented in this thesis. By reading and doing, often struggling through the dilemmas of research, the researcher has learned how to be a good researcher. The researcher also recognises that part of being a good researcher is continually challenging and refreshing her understanding of what it means to be a good researcher.

### 7.4 Value

Over the course of the research, the researcher often returned to the question of how to define value. During conferences and meetings, the researcher observed that this struggle to define value is ubiquitous amongst scholars. This thesis has offered a definition of value that is as precise as possible given our limited academic understanding of value. Value is dependent on perspective. There are a great number of perspectives in the world, which offers one possible explanation for why the concept of value has been difficult to communicate in academic terms.

While some scholars might cringe at the vagueness of the concept of value, the researcher has begun to think that value's vagueness is actually one of its strengths, at least in the context of the innovation process. When understood as the broadly defined concept presented in this thesis, value transcends material and emotional needs. The researcher believes this ambiguity is why the concept of value is so effective for some stages of innovation. Value's transcendent ability lends to the integration of seemingly dissimilar things, a practice that often leads to interesting innovations. The concept of value not only allows us to cut across, but also into, a situation. Value enables us to dig into something, bringing us nearer to the root cause. By teasing something apart into its fundamental and unique value forms, we gain new understanding. By abstracting something into its value forms, we are able to imagine a range of alternative ways those value forms can be delivered.

As academics, we aim to define things precisely, yet this quest for precision can be burdensome in the context of the innovation process, especially in earlier stages, such as ideation. The researcher has observed the positive response to the vague concept of value that is embedded in the Value Mapping tool. A precise definition of value is almost avoided in the context of the workshops. Instead, a selection of examples of different forms of value is offered to workshop participants. The lack of a precise definition has not been observed to be a problem. Value is a concept that people

instinctively seem to grasp. This intuitive understanding of value enables people from different backgrounds to work through a problem together. The concept of value serves as the building block of a shared language for innovation.

### 7.5 Views on healthy food business models

During the three years since the research began, the researcher has become increasingly convinced of the specialness of business models that leverage food as a means to affect health outcomes. While the researcher has not spent enough time collecting data on business models in other sectors to be able to make scientifically evidenced comparisons, the researcher has conducted this research from a research centre that specializes in the study of sustainable business models across many different sectors. The researcher has been exposed to examples of sustainable business models in other industrial contexts (e.g. cars, clothing and textiles, batteries, etc.). Therefore, the researcher feels well positioned and compelled to share some thoughts about the uniqueness of healthy food business models by comparing issues in healthy food ventures to those in the car industry.

The researcher has observed that healthy food business models have to address matters that standard sustainable business models often do not. Bocken et al.'s sustainable business model archetypes offer a tool to dig deeper into this observation. The sustainable business model archetypes are a set of technological, social and organisational patterns that Bocken et al. identified across the sustainable business model literature (Bocken et al., 2014). By considering a selection of archetypes, comparing them across the healthy food venture and car industry contexts, we can better understand why the researcher suggests that healthy food business models are special.

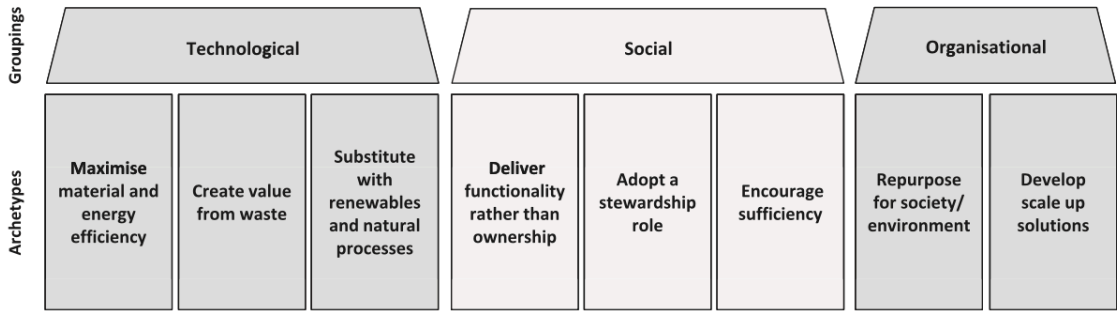



**Figure 7.3 Sustainable business model archetypes**
from (Bocken et al., 2014)

For the left-most archetype—'maximising energy efficiency'—there is an obvious example in cars. Customers have welcomed the energy efficiency progress that car manufacturers have made. The better the car's fuel efficiency, the less the customer spends on fuel. Searching for an analogous example in the healthy food context quickly allows us to see how differently one must think. Even articulating an example is difficult. A little reflection reveals that food is more akin to fuel than the car in the analogy. The food consumer is akin to the car. Following this logic, the equivalent of a car company that designs fuel efficiency into their cars is a healthy food venture that manages its consumer-customer's metabolic rate. An efficient metabolism would technically mean that the consumer burns calories more slowly. The general overconsumption trends suggest that consumers need their metabolisms sped up, not slowed down. What percentage of consumers would appreciate a slower metabolism? It might translate to savings on food spend, but is that what the consumer wants? Would that solve the global epidemic of diet-related disease?

Moving to the next archetype—'creating value from waste'—we can more easily imagine an example in the healthy food context. Food waste has become a major talking point within the last decade. The fresh produce category has a high percentage of food waste, and consequently campaigns to reduce food waste seem to align with healthier food consumption. However the messaging around food waste reduction is complicated. Food waste campaigns highlight that consumers are a major source of the problem and educate consumers to take action. While some consumer education focuses on buying less food, the messaging to reduce food waste sometimes gets conflated with '*clean the plate*'—a practice that potentially contributes to overconsumption. There is also the issue of the incentive for the consumer. The savings from buying less food surely add up over time, but it takes a while for those savings to appear meaningful. Returning to the counterexample of the car, the opportunity to trade-in cars is a model that 'creates value from waste'. With the opportunity to earn thousands of dollars by trading in an old car, the incentive for the car's owner is obvious. The unit economics of food on the other hand are often small.

Earlier in the discussion, the researcher likened food to fuel. Given this analogy, we might imagine the archetype of 'substituting with renewables' to offer promising ideas for the healthy food context. The car industry has introduced cars that run on petrol alternatives such as hydrogen and electricity. In the healthy food context, the substitution archetype might take the form of food products that offer the same

function as traditional meals. There are many examples of the food industry pursuing meal substitutes. Think about all the meal bars and drinks that are out on the market. The food industry can engineer a meal bar or shake that has just the right amount of nutrition for a given consumer. The meal replacement category has definitely seen success in recent years. But what percentage of people are happy to regularly replace their meals with a conveniently engineered bar or shake? The researcher suspects that people are more willing to make a permanent swap to their source of automobile fuel as opposed to their source of nutrition.

Looking at the three technological archetypes across the two contexts highlights the specialness of business model design in the healthy food context. As food consumers, we are particularly sensitive to changes in our food environment. We directly feel those changes. In the case of the car, changes are felt less directly. When we use an alternatively fuelled car, we might observe differences in how the car functions, but we do not experience those differences in the way we experience differences when we change what we eat. We have immediate reactions to what we eat. We experience satisfaction. We experience disgust. The food waste example reminds us that our bodies' sensitivity to food means there is a fine line between appropriate consumption and overconsumption. The food waste example also illustrates how psychologically taxing it can be to weigh the benefits and costs of eating in a particular way. It shows how all of the 'good' value forms that are attached to food can start to get conflated. 'Cleaning the plate' might mean that the environment and society have not produced food in vain, but does 'cleaning the plate' potentially stimulate our overconsumption and disease?

The complicated psychology that is intertwined with how we eat surfaces in many other examples. We can explore it further by considering the three social archetypes in Figure 7.3—'deliver functionality rather than ownership', 'adopt a stewardship role', 'encourage sufficiency'. These archetypes might be exemplified through various nutritional services. The researcher has observed that reactions to such services are complicated. Some people are grateful to have their meals decided through a service. Other people might feel that a freedom has been taken from them. Other people might feel stigmatised by the dietary recommendations that they have been given based on their health status. Some people feel empowered by a cooking class. Other people might feel patronised and offended. Some people may have grown up eating and cooking in a way that reminds them of their homeland or family. Nutritional

and cooking advice might be insulting. Food is part of our identity. Many of us feel strongly that we should be able to make our own decisions about how we eat.

The six technological and social archetypes have already stimulated a rich discussion of the healthy food business model difficulties, and so the researcher will not continue into the organisational archetypes. The following list summarises the researcher's observations about some of the things that make the healthy food context special. Healthy food consumption is intertwined with:

- Our individual biology
- Complicated psychology
- Small unit economics of food
- Pleasure of eating
- Our personal identity
- Our health status, which we consider personal information

Coming back to healthy food business models, some of the items in that list are challenging to alter from a logistical standpoint, as well as an ethical standpoint. The list is not meant to be comprehensive. In fact the six items above do not explicitly address two of the dimensions that the researcher has observed to be particularly tricky to manage.

Healthy food ventures involve a time dimension and individual responsibility dimension that are exceptionally challenging. The researcher sees the two dimensions as being highly interrelated. The pleasure of eating comes with short-term benefits. Those short-term benefits aggregate into long-term problems, but it is hard to have that foresight in the moment of pleasure. It might be difficult to recognise that we are overconsuming when the moment is so short-lived. The researcher shares the widely held opinion that our food environment, which includes social and marketing influences, contributes to the way that we eat. However, our hands are the instruments in the food chain that ultimately move food from the outside world into our bodies. If we have overconsumed, we have done that ourselves. And the time dimension complicates this. We know our willpower, have seen it operate in the past and might calculate that any bad eating habits we encounter are just temporary.

How do we deal with the time and individual responsibility dimensions using our business model knowledge? The literature review chapter discussed the externality theme that surfaces across the sustainable business model literature. The externality is the cost or benefit that is imposed on a party that did not have a choice in the matter.

Sustainability scholars suggest that sustainable business model thinking offers mechanisms to internalise externalities (Bocken et al., 2013; Evans et al., 2017; Tukker & Tischner, 2006). However, the externality that we see in the food context is a special type of externality. The weight gain and disease that results from unhealthy food consumption is an externality that people impose on their future selves. Economists refer to this specific type of externality as an internality—
"the overlooked costs people inflict on their future selves" (The Economist, 2017).

The researcher has observed how sustainable business model thinking offers practitioners methods to identify externalities and tackle them by the way they propose, deliver and capture value. For example, a company that offers a product by renting it as opposed to selling it (value delivery) is able to offer the consumer a longer lasting, higher quality product. This specific example is a value opportunity that the uncaptured value forms in the Value Mapping tool might help us recognise. However, framing the sickness that consumers inflict on their future selves is not an instance of value uncaptured that the researcher observed to surface in any of the Value Mapping workshops.

This research has encouraged the researcher to articulate the specialness of healthy food business models, which has helped the researcher to see that the literature on sustainable business model thinking does not do enough to tackle internalities and the time dimension. The researcher has not come across examples of sustainable business model tools that systematically integrate the two dimensions—the internality and time lag—into their methods. One step towards integrating these dimensions could be differentiating between the same stakeholders at different points in time—current consumers and future consumers—in tools such as the Value Mapping tool and Business Model Blossom. Systematic incorporation of internalities and the time dimension into sustainable business model thinking requires further research.

## 7.6 Concluding remarks

This chapter has concluded the thesis by evidencing how the researcher met the research objectives that were set out at the start of the research. The researcher demonstrated how the research answered the research questions and made contributions to both knowledge and practice. The chapter has also addressed the strengths and weaknesses of the research and has incorporated a variety of discussions that pave the way for future research endeavours.

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**Appendix A**

The researcher asked the following set of questions during the interview with a director at Venture F on May 6, 2016.

**Researcher:** Can you give me a brief summary of what [Venture F] does, and the story of how it started?
{Interviewee response}

**Researcher:** What would you say the objective of [Venture F] is?
*{Interviewee response}*

**Researcher:** How was it initially financed?
*{Interviewee response}*

**Researcher:** You were talking about how the services span the food supply network. What would you say some of the big challenges are specifically in your state and your region?
*{Interviewee response}*

**Researcher:** Do the local suppliers feel like because they are engaged with your organization, they are next in line once those food businesses are able to scale and afford that product?
*{Interviewee response}*

**Researcher:** What does [Venture F] provide for its entrepreneurs?
*{Interviewee response}*

**Researcher:** Can you give examples of how you encourage them to grow incrementally?
*{Interviewee response}*

**Researcher:** Who engages with [Venture F] besides the food entrepreneurs and staff?
*{Interviewee response}*

**Researcher:** Could you comment on what you think works well and what doesn't in [one specific project of Venture F]?
*{Interviewee response}*

**Researcher**: Are there any organizations that inspire you at [Venture F]?
*{Interviewee asked for question clarification}*
**Researcher:** I'm thinking particularly about organizations that have a similar mission, but I don't want you to feel bounded by that.
*{Interviewee response}*

**Appendix B**

These tables list the dates upon which the interviews were conducted.

| **Venture A** | |
|---|---|
| **Interviewee** | **Date interviewed** |
| Executive A1 | 1-Oct-15 |
| Executive A1 | 7-Apr-16 |
| Executive A2 | 12-Apr-16 |
| Executive A3 | 5-Apr-16 |
| Employee A4 | 11-Apr-16 |
| Employee A5 | 4-Apr-16 |
| Employee A6 | 12-Apr-16 |
| Employee A7 | 6-Apr-16 |
| Employee A8 | 12-Apr-16 |
| Employee A9 | 19-Apr-16 |
| Employee A10 | 14-Apr-16 |
| Employee A11 | 6-Apr-16 |
| Employee A12 | 5-Apr-16 |
| Employee A13 | 14-Apr-16 |
| Employee A14 | 6-Apr-16 |

| **Venture B** | |
|---|---|
| **Interviewee** | **Date interviewed** |
| Executive B | 7-May-15 |

| **Venture C** | |
|---|---|
| **Interviewee** | **Date interviewed** |
| Director C | 8-Sep-15 |

| **Venture D** | |
|---|---|
| **Interviewee** | **Date interviewed** |
| Director D | 16-Oct-15 |

| **Venture E** | |
|---|---|
| **Interviewee** | **Date interviewed** |
| Director E | 11-Nov-15 |

| **Venture F** | |
|---|---|
| **Interviewee** | **Date interviewed** |
| Director F | 6-May-16 |

| **Venture G** | |
|---|---|
| **Interviewee** | **Date interviewed** |
| Director G | 8-Mar-16 |

| **Venture I** | |
|---|---|
| **Interviewee** | **Date interviewed** |
| Director I | 3-May-17 |
| Director I | 16-May-17 |
| Director I | 18-Jan-18 |

| **Venture J** | |
|---|---|
| **Interviewee** | **Date interviewed** |
| Director J | 20-Mar-17 |
| Director J | 23-Jun-17 |
| Director J | 4-Aug-17 |

| **Venture K** | |
|---|---|
| **Interviewee** | **Date interviewed** |
| Director K | 24-Feb-17 |
| Director K | 7-Mar-17 |
| Director K | 30-Jun-17 |

| **Venture M** | |
|---|---|
| **Interviewee** | **Date interviewed** |
| Executive M | 23-Apr-16 |

| **Venture O** | |
|---|---|
| **Interviewee** | **Date interviewed** |
| Director O1 | 13-Oct-15 |
| Director O2 | 13-Oct-15 |
| Director O3 | 13-Oct-15 |
| Director O4 | 19-Oct-15 |

| **Venture P** | |
|---|---|
| **Interviewee** | **Date interviewed** |
| Executive P1 | 22-Apr-15 |
| Partner P2 | 22-Apr-15 |

| **Venture Q** | |
|---|---|
| **Interviewee** | **Date interviewed** |
| Executive Q1 | 12-Apr-16 |
| Intern Q2 | 20-Apr-16 |
| Partner Q3 | 21-Apr-16 |

| **Venture R** | |
|---|---|
| **Interviewee** | **Date interviewed** |
| Director R | 19-Apr-16 |

| **Venture S** | |
|---|---|
| **Interviewee** | **Date interviewed** |
| Director S | 26-Feb-16 |

## Appendix C

List of acronyms

| Acronym | Expansion |
|---|---|
| AMJ | *Academy of Management Journal* |
| B2B | business-to-business |
| BM | business model |
| BMB | Business Model Blossom |
| BMC | Business Model Canvas |
| BMI | business model innovation |
| BOGOF | buy-one-get-one-free |
| CHNA | Community Health Needs Assessment |
| CS | case study |
| CSA | Community Supported Agriculture |
| HBR | *Harvard Business Review* |
| HFV | *healthy food venture* |
| IFV | health internalising food venture |
| MOFV | multi-objective food venture |
| NVD | Negative Value Diagnostic |
| POS | Point-of-sale |
| PSS | product-service system |
| RQ | research question |
| SocBM | social business model |
| SusBM | sustainable business model |
| TBL | triple bottom line |
| UPC | Unique Product Code |
| VU | value underperformance |